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DLXXXIV.—WEST INDIA ROYAL COMMISSION.

THE terms of the appointment of the Royal Commission appointed to inquire into the condition and prospects of the West India Colonies were recorded in the *Kew Bulletin* for this year (p. 109.) The Commission accomplished its task and issued its report in the course of last autumn. It has been thought desirable to reproduce in these pages the positive conclusions at which the Commissioners arrived. This is likely to give them a wider circulation than will be reached by the more bulky Blue-book in which they are contained. It has not been thought necessary to include the more formal portions of the report or those relating to the sugar question, on which the Commission was not unanimous.

The conclusions at which the Commissioners arrived as to the natural resources and possibilities of future development of the West Indies have long been known at Kew, where they have for many years been attentively studied. But they have never before been stated in so authoritative a manner. The present distress has been long foreseen as inevitable, and, as far as lay within its power, Kew, with varying success, has endeavoured to prepare for it by such remedial expedients as were possible. But the part of Cassandra is never grateful. The term of office of a Colonial Governor is brief, and there are few who care, or perhaps have the power, to adopt more than an opportunist policy. New industries can only be built up slowly, and the well conceived plans of one Governor do not always commend themselves to his successor. It is certain, however, that in work of this kind no permanent progress can be reached without patient and long-sustained effort.

The Commissioners appended to their report a memorandum by the Assistant-Director, who accompanied the Commission as "expert adviser in botanical and agricultural questions," on the "agricultural resources and requirements of British Guiana and the West India Islands." In accordance with the wish of the Secretary of State that this should be issued in a more convenient form, it will be printed as an additional volume of the *Kew Bulletin*.

COLONIAL OFFICE to the TREASURY.

SIR,

Downing Street,
November 9th, 1896.

REPRESENTATIONS continue to reach Mr. Secretary Chamberlain giving cause for increasing disquietude as to the prospects of certain West Indian and other sugar-producing Colonies.

2. The Lords Commissioners of the Treasury are aware that the price of sugar in open markets has for some time past been affected by extraordinary depression, caused both directly by the bounties given by some European Governments and indirectly by the effect of those bounties in stimulating an enormous production in advance of effective demand.

3. Early in the year 1895 it was judged necessary by the Marquess of Ripon to sanction special remissions of taxation on sugar estates in British Guiana, Trinidad, and the Leeward Islands, in consequence of the evidence laid before him of the critical position of this industry. In the course of that year very urgent petitions and memorials were addressed to the Secretary of State from practically all the Colonies affected, through their Chambers of Commerce and other associations, making positive statements as to the disastrous effect of the sugar trade in the abandonment of estates and the disorganisation of industry. These representations were endorsed and supported by the Governors. In November, 1895, Mr. Chamberlain was addressed by a very large and representative deputation on behalf of the West India sugar industry, and the commercial and engineering interests associated with it, who desired that he should recommend Her Majesty's Government to take active steps against the foreign sugar bounties as the only means of saving the West Indian Colonies from ruin. A report of the proceedings on this occasion is enclosed.

4. On the 1st of August last the amounts of the bounties offered by the Governments of Germany and Austria-Hungary were approximately doubled, and a Bill has been prepared, and will probably be adopted in France, to raise the bounties in that country correspondingly, although it is computed that they are even now equivalent to a grant of £3 5s. per ton. The new German rates are from 1s. 3d. to 1s. 9d. per cwt., or 25s. to 35s. per ton.

5. The prospect created by the announcement of these increased rates caused a renewed fall of about £3 per ton in the market price of sugar, and has resulted in a fresh series of memorials to the Secretary of State, and in a stimulus to the tendency to abandon the cultivation of estates. Announcements of the intention to do this, and warnings as to the serious consequences that may be expected, are reaching Mr. Chamberlain from most of the Colonies affected.

6. These facts are very briefly recapitulated without detail, which would be superfluous in view of the position which Mr. Chamberlain has so far been forced to maintain towards all such representations, namely, that Her Majesty's Government do not see their way to take any effectual or active steps whatever to countervail the operation of the Bounties.

7. Until recently it appeared not impossible that the Continental Bounties might be spontaneously withdrawn, or that the over-production which they have caused might remedy itself in the natural manner by the collapse of unprofitable businesses. These possibilities are adjourned by the increase in the Bounties above referred to.

8. Mr. Chamberlain feels that he cannot any longer disregard indications which are arising in the administrative purview of this Department of impending liabilities and difficulties which the Colonies will not be able to meet unaided.

9. At the end of the year 1895 there were deficits in Antigua and St. Kitts of upwards of £26,000 and £16,000 respectively, and notwithstanding an unusually heavy sugar crop in those islands, and an increase in the rates of taxation, it is expected that these deficits will be increased during the current year. The population are almost entirely dependent on the sugar estates, and it is represented that estates are being abandoned. There were riots in St. Kitts this spring arising from the reduction of wages on the sugar estates, and if there is any serious lack of employment a recurrence of disturbances may be expected. The Windward Islands have during 1895 and 1896, notwithstanding severe retrenchment and the increase of taxation until the point of inelasticity has been reached, fallen into a position of insolvency which compels Mr. Chamberlain to apply to the Lords Commissioners for an Imperial grant-in-aid, as to which another letter will be addressed to you. The Lords Commissioners will recollect that in the letter from this Department of the 15th of August last, in which Mr. Chamberlain applied for assistance in the promotion of subsidiary industries, which the Lords Commissioners decided not to grant, the possibility that such an appeal might become necessary was foreshadowed. The abandonment of the majority of the sugar estates in St. Vincent has been definitely announced.

10. The Government of Barbados has been passing through severe financial difficulties, involving reductions of the cost of establishments. The effect of the abandonment of estates in this island would be particularly grave and would necessitate assisted emigration.

11. With regard to some of these Colonies there may be reason to think that improvements in manufacture have been neglected. This, however, cannot be said to be the case in Trinidad, where, nevertheless, cultivation is being reduced, nor in British Guiana, where it is being reduced with very serious rapidity, involving the loss of much capital invested in expensive machinery.

12. This process has a special significance in the two last-named Colonies, the Governments of which are responsible for many thousands of coolie immigrants, which they are liable to be called upon, under contract, to repatriate. If sugar cultivation, for which British Guiana and Barbados are specially suitable, and in which a large amount of capital is invested, were abandoned in those Colonies, no alternative industry could at once take its place, and the coolies in British Guiana and the negroes in Barbados would be thrown on the hands of an insolvent administration, which would be unable to provide for their repatriation

in the one case, and for their support or emigration in the other case. The circumstances of Antigua, St. Kitts and Nevis are analogous on a smaller scale.

13. The special danger which appears in the outlook in the Colonies thus dependent on sugar lies in the fact that this industry employs far more labour to the acre than any possible substitute, and that no substitute is immediately available ; that the revenue depends directly on the industry, and that the administrations are, therefore, liable to be financially crippled just when there is the greatest strain upon them, and that any general failure of employment may be confidently expected to produce, if not immediate rioting, at least a very dangerous and unstable situation, in which more efficient police arrangements than exist in the majority of the islands, and possibly the presence of troops or ships of war may be necessary to maintain order.

14. A serious plantation disturbance involving a large number of casualties has been reported from British Guiana by last mail.

15. It must also be borne in mind that the Colonial banking establishments in the West Indies are considerably involved in the sugar industry, and that a collapse of that industry would be likely to bring about a financial crisis, the gravity of which and of its indirect consequences, it would be difficult to estimate.

16. The foreign Sugar Bounties have been and are at present of substantial advantage to some of the industries of this country. It was in great measure on this account that the bill introduced by Her Majesty's Government, in the year 1889, to give effect to the Sugar Bounties Convention was not pressed. It has now, in view of further developments, become a question whether the continued enjoyment of this advantage does not involve the ruin of the British sugar-producing Colonies, and, if so, what this prospect further implies, both as regards the social future of such Colonies and in claims for Imperial expenditure which it will not be possible to resist.

17. The position of affairs being as indicated, Mr. Chamberlain is not prepared, as Secretary of State for the Colonies, to accept the responsibility of allowing matters to take their course and to acquiesce in the policy of non-intervention hitherto pursued in regard to the Bounties without having satisfied himself as to what such a policy may entail, as regards both the Colonies and the Exchequer, nor would he think it right that Her Majesty's Government should adhere to their present attitude on this question, without knowing, as clearly as possible, at what cost it may be to the welfare and stability of an important part of the Empire, and to industries in which English capital is largely invested.

18. Mr. Chamberlain has, therefore, come to the conclusion that it is expedient that a Royal Commission shall be appointed to inquire into the effect of the foreign sugar bounties upon the British Colonial industry, more particularly in regard to the West Indies, as early as can be arranged, so as to investigate in the Colonies themselves whether their position has improved or retrograded within the last ten years, and the causes involved ; what are actually the state and prospects of the sugar industry,

and of any alternative industries existing or possible to be established ; what has been the course of, and what causes have affected, the revenue and expenditure of the Governments of late years ; what is the condition and temper of the negro and coolie populations ; and what line of industrial development it is likely that these populations may follow with advantage in the event of the extensive abandonment of sugar estates.

19. There are many particulars of inquiry subsidiary to these main heads which would come within the scope of such a Commission ; the precise terms of reference may be determined if the appointment of the Commission is decided upon.

20. Mr. Chamberlain desires me to request that you will move the Lords Commissioners to give their serious consideration to this proposal, which has not been made without mature deliberation on a long succession of circumstances conducing to suggest its necessity. As it would be important that the Commission, if appointed, should start for the West Indies without delay and proceed as expeditiously as possible with the proposed investigations and report, Mr. Chamberlain will be glad if the Lords Commissioners will favour him with an early intimation as to whether they agree to the principle of the inquiry he proposes.

I am, &c.,

EDWARD WINGFIELD.

SECRETARY of STATE for the COLONIES to SIR H. W. NORMAN.

SIR,

Downing Street,
December 29, 1896.

I HAVE the honour to transmit to you the Queen's Commission appointing yourself, Sir Edward Grey, Bart., M.P., and Sir David Barbour, K.C.S.I., to be Commissioners to inquire into the conditions and prospects of the sugar-growing Colonies in the West Indies, and appointing Mr. Sydney Olivier, B.A., to be secretary to the Commission.

I have also the honour to inform you that the Queen has been pleased to approve of Daniel Morris, Esq., D.Sc., C.M.G., Assistant-Director of the Royal Gardens, Kew, accompanying the Commission as expert adviser in botanical and agricultural questions.

I have to request that you will be good enough to cause the necessary steps to be taken for carrying into effect Her Majesty's commands contained in the enclosed Commission.

A separate letter is being addressed to you, indicating the points to which Her Majesty's Government wish the inquiry to be specially directed.

I have, &c.,

J. CHAMBERLAIN.

SECRETARY of STATE for the COLONIES to SIR H. W. NORMAN.

SIR,

Downing Street,
January 5, 1897.

WITH reference to my letter of the 29th of December, accompanying the Royal Commission appointing you and Sir David Barbour and Sir Edward Grey Commissioners to inquire into the

present condition and future prospects of the sugar-growing Colonies in the West Indies, and to suggest such measures as appear to you best calculated to restore and maintain the prosperity of those Colonies, and their inhabitants, I have thought it desirable to state more fully than is expressed in the terms of the Commission some of the points to which Her Majesty's Government would wish the inquiry to be directed.

2. In view of the representations referred to in the preamble of the Commission, the first subject for consideration is whether the sugar industry in the Colonies in question is in fact in danger of extinction, and in connection with that question it will be necessary to ascertain what are the causes of the present depression of that industry whether they are temporary or permanent; whether they include matters independent of the competition of sugar produced under the Bounty system, such as extravagance in management, imperfection in the processes of manufacture, inadequate supervision consequent on absentee ownership, and, if so, whether the removal of these causes would enable it to be carried on profitably notwithstanding such competition.

3. A further subject of the inquiry would be whether in the event of the production of sugar in these Colonies being discontinued or considerably diminished, other industries could replace it and be carried on profitably, and could supply employment for the labouring population. If such industries can be indicated, it would also be desirable to ascertain whether they could be established in time to meet any existing crisis. In this branch of the inquiry you will, no doubt, derive valuable assistance from Dr. Morris.

4. It is also of great importance to ascertain what effect the total or partial extinction of the sugar industry would be likely to have upon the condition of the labouring classes and upon the revenue of the Colonies concerned, and whether any loss of revenue could be to any material extent met by reduction of public expenditure, and whether those Colonies would be able to provide the necessary cost of administration, including the relief of unemployed and necessitous persons without subvention from the mother country. If it appears that such subventions will be necessary, Her Majesty's Government would be glad to be furnished with your opinions as to their probable amount.

5. I trust that the Commissioners will find it possible to complete their inquiry in the Colonies within a period not exceeding four months, and in order to facilitate their movements from the different Colonies I have obtained the consent of the Lords Commissioners of the Admiralty to place a gunboat at their service.

I have, &c.,

J. CHAMBERLAIN.

PART I.

ECONOMIC CONDITION OF THE WEST INDIA COLONIES.

10. Your Majesty's possessions with which we have to deal in the present Report are all situated within the tropics, and extend from British Guiana in the south-east to Jamaica in the north-west, through 20 degrees of longitude and 15 of latitude. The difficulties of communication between them may be illustrated by stating that a journey from British Guiana to Jamaica by the mail route occupies eight days, allowing for the present detention of two days at Barbados.

11. The Colonies may, as a whole, be described as eminently suited, both by climate and soil, for the growth of special tropical products, such as sugar-cane, cocoa, coffee, logwood, nutmegs, and various descriptions of fruit, of which the most important are bananas, oranges, cocoa-nuts, and pine-apples.

12. In some of the Islands cattle and horses can be profitably reared, but the raising of stock is never likely to be of more than local importance. There are extensive savannahs in the interior of British Guiana, which are said to be well suited for this purpose, but they cannot be utilised until means of access from the coast are provided.

13. There is no prospect of manufacturing industries being established on any considerable scale. Nor is there any mineral wealth of importance known to exist, with the exception of asphalt, which is obtained from the well-known Pitch Lake of Trinidad, and the gold which has been exported in considerable quantities from British Guiana in recent years.

14. Owing to the nature of the soil and climate such articles of human food as are yielded by cultivation in the tropics can, as a rule, be readily produced in large quantities, and there is consequently no likelihood of any permanent deficiency of the bare necessities of existence for the labouring classes. For this class of food, which includes yams, sweet potatoes, and generally what is known in the West Indies as ground-provisions, there is however, no foreign market of any importance. For articles of food which can only be produced in temperate climates, and for manufactured goods, including clothes, and, generally, for the purchase of imports of any kind, Your Majesty's West Indian possessions are dependent on being able to find a profitable foreign market for the special tropical products which we have mentioned in paragraph 11. It is, moreover, only by means of such an export trade that the population can be maintained in such a condition of prosperity as will permit of sufficient revenue being raised to meet the cost of a civilised Government.

15. The only qualification of this general statement regarding the importance to the British West Indies of the export trade in agricultural products which we find it necessary to make has reference to British Guiana, where the production of alluvial gold is already of considerable importance, and where operations are being carried on for the extraction of gold from quartz reefs. The

asphalt industry in Trinidad is not of such magnitude as to support any considerable section of the population, though it is a valuable source of revenue to the Government.

16. We do not consider it necessary to treat at any length of the economic history of the West Indies, seeing that the special causes of the present depression have only begun seriously to affect the sugar-producing Colonies within the last fifteen years.

17. The prosperity of the West Indies in former times was mainly due to sugar and rum, and the production of these commodities attained such dimensions as to dwarf, and, at one time, almost to extinguish, every competing industry. For many years the sugar industry has, from various causes, been growing less profitable than it used to be, and the production for export of such articles as cocoa and fruit has made considerable progress in some of the Islands. * * * * *

18. The total value of the sugar products exported was about three and a quarter million pounds sterling, the value of the sugar being some 2,790,000*l.*, of the rum 265,000*l.*, and of the molasses 195,000*l.*

19. It will be seen that in most of Your Majesty's possessions in the West Indies the products of the sugar-cane, though they are now valued at prices which are much below those which prevailed a few years ago, still form by far the larger portion of the total exports of native produce.

20. The gravity of the immediate danger to the welfare of each Colony which would arise from a failure of the sugar-cane industry may, for practical purposes, be measured by the proportion which the exports of sugar, rum, and molasses bear to the total exports of that Colony.

21. In such an event the welfare of each Colony would in the long run, however, depend on the extent to which it might be found possible to establish other industries. * * * * *

CONSEQUENCES OF A FAILURE OF THE SUGAR INDUSTRY.

39. If such reduction or extinction of the industry occurs, and if its place cannot be adequately filled by the substitution of other industries, the consequences are likely to be of a very serious character.

40. The immediate result would be a great want of employment for the labouring classes, and the rates of wages, which have already fallen, would in all probability be still further reduced. The public revenue would fall off, and the Governments of some of Your Majesty's possessions would be unable to meet the absolutely necessary public expenditure, including interest on debt, whilst additional outlay would have to be incurred in providing for the population by emigration or otherwise, and the general standard of living would be reduced to a lamentable extent in every Colony which is largely dependent on sugar.

41. The Islands which are likely to suffer most in such a contingency are Barbados, St. Vincent, Antigua, St. Kitts-Nevis, Montserrat, and probably St. Lucia; but none of them would

escape, except Grenada. British Guiana would also suffer severely, and the problem to be dealt with in that Colony might prove to be one of exceptional difficulty. Jamaica and Trinidad have other resources, and the export of sugar from Dominica has already been largely reduced, and now contributes less than one-sixth of the value of the total exports from that island.

42. In British Guiana and Trinidad the necessity for keeping faith with the East Indian immigrants, and of repatriating those of them who had a right to a free passage to India, and wished to take advantage of that right, might involve a large expenditure, which under the circumstances must fall upon the public funds, as it would be impossible to levy the cost from the sugar estates.

43. The present condition of such an Island as Tobago illustrates the serious character of the economic and administrative problem that must arise in Your Majesty's possessions in the West Indies if there is a collapse of the sugar industry. The exports of sugar from Tobago have already decreased very much. The resident population manages to live, but a considerable proportion of them is driven, permanently or temporarily, to other islands in search of work, and it is impossible to raise more revenue than is barely sufficient to meet the necessary expenditure on the cheapest and simplest form of government. New roads cannot be made, and even those that already exist cannot be kept in proper repair out of the revenue. * * * * *

FUTURE OF THE SUGAR INDUSTRY.

107. The conclusions with regard to the sugar industry at which we have so far arrived may be summed up as follows :—

There is, at present, no prospect of any considerable and permanent rise in the price of sugar in the ordinary course of events.

The effect which the imposition of countervailing duties on the import of bounty-fed sugar into the United Kingdom would have upon price is uncertain, and, for reasons which we have stated, we are unable to recommend such imposition or the grant of a bounty on West Indian sugar.

The cost of producing sugar in those portions of the West Indies where the old processes of manufacture are still followed could in many places be reduced by the introduction, at a considerable cost, of new machinery, but the prospect of profit is not such as to induce capitalists generally to supply the necessary funds.

It is possible that improved varieties of sugar-cane may be discovered, but, in no case, is any such discovery likely to be made in sufficient time to materially alleviate the present distressed condition of the industry.

Some disadvantage is imposed on the producers of rum by the Imperial surtax on imported spirits.

Absentee ownership is not a cause of the present depression, and the extension of resident ownership of estates would not materially improve the prospects of the industry.

Wages and salaries have already been reduced, and no further economy can be expected in respect of them.

108. We feel some hesitation in expressing a positive opinion regarding the future of such an industry as that of the production of sugar, which is liable to be affected by so many unforeseen influences, economic and others, but on a full consideration of the circumstances of the sugar industry in the West Indies we are driven to the conclusion that there is no prospect of the present area of cultivation being maintained. Where the conditions for the production of sugar are favourable, and the latest processes have been adopted, and the best machinery introduced, we believe that some West Indian sugar estates may, even at present prices, continue to show a surplus of receipts over working expenses, but that surplus will not, in our opinion, be sufficient in all cases, after providing for deterioration, and for the results of exceptionally unfavourable seasons, to yield the ordinary market rate of profit on the capital involved in the estates. Under present conditions, therefore, the prospect before the sugar industry is the gradual abandonment of the weaker estates, a process which has already begun, and, in some cases, a failure to renew the machinery as it wears out on estates that are now well equipped, followed in time by a similar abandonment.

109. There is every reason to believe that a very serious condition of things is rapidly approaching in Your Majesty's West Indian possessions, and that the crisis will be reached in a very few years. We have spoken of the abandonment of estates as likely to be gradual, both because the decision to abandon cultivation is not likely to be at once universal, and because on many estates, where such decision is taken, work is not likely to cease altogether until the growing crop and the ensuing ratoon crop, or aftergrowth of the canes, have been manufactured. Where, however, the owners of estates depend on loans for the carrying on of cultivation, the collapse of the credit of the industry may result, in some instances, in the sudden cessation of all employment upon such estates.

110. It is also material to add that the exceptionally favourable season, which some of the Colonies have recently experienced, has to some extent postponed the crisis which must be looked for under normal conditions, and that a bad season would rapidly accelerate the reduction of the present cultivation.

111. It may be that no industry, or series of industries, can be introduced into the West Indies which will ever completely take the place of sugar, and certainly no such result will be attained within the space of a few years, but it is of the utmost importance that no time should be lost in making a beginning of substituting other industries for the cultivation of the sugar-cane.

SYSTEM OF PEASANT PROPRIETORS

112. If the sugar estates are thrown out of cultivation, it is extremely improbable, and, in fact, it may be stated to be impossible, that any industry to be conducted on large estates can ever completely take its place, we have therefore no choice but to consider how means can be found to enable the mass of the population to support themselves in other ways than as

labourers on estates. If work cannot be found for the labouring population on estates, they must either emigrate or support themselves by cultivating small plots of land on their own account. No large industry, other than agriculture, offers any prospect of success, except possibly the gold industry in British Guiana, and when large estates cannot be profitably worked the adoption of the system of cultivation by petty proprietors is inevitable.

113. The labouring population in the West Indies is mainly of negro blood, but there is also, in some of the Colonies, a strong body of East Indian immigrants, and the descendants of such immigrants. The negro is an efficient labourer, especially when he receives good wages. He is disinclined to continuous labour, extending over a long period of time, and he is often unwilling to work if the wages offered are low, though there may be no prospect of his getting higher wages from any other employer. He is fond of display, open-handed, careless as to the future, ordinarily good-humoured, but excitable and difficult to manage, especially in large numbers, when his temper is aroused.

114. The East Indian immigrant, ordinarily known as the coolie, is not so strong a workman, but he is a steadier and more reliable labourer. He is economical in his habits, is fond of saving money, and will turn his hand to anything by which he can improve his position.

115. The cultivation of the sugar-cane has been almost entirely carried on in the past on large estates, but both the negro and the coolie like to own small patches of land by which they may make their livelihood, and take a pride in their position as landholders, though in some cases they also labour at times on the larger estates, and are generally glad to have the opportunity of earning money occasionally by working on such estates, and on the construction and maintenance of roads and other public works. The existence of a class of small proprietors among the population is a source of both economic and political strength.

116. The settlement of the labourer on the land has not, as a rule, been viewed with favour in the past by the persons interested in sugar estates. What suited them best was a large supply of labourers, entirely dependent on being able to find work on the estates, and, consequently, subject to their control and willing to work at low rates of wages. But it seems to us that no reform affords so good a prospect for the permanent welfare in the future of the West Indies as the settlement of the labouring population on the land as small peasant proprietors; and in many places this is the only means by which the population can in future be supported. The drawbacks to the system of peasant proprietors have hitherto been their want of knowledge and care in cultivation, and the habit of what is called prædial larceny. The latter term is applied to the theft of growing crops, which is said to be very prevalent. We do not believe it will disappear until such practices are universally condemned by native public opinion, which, unfortunately, does not appear to be the case at present, and in the meantime each Colony must deal with the question as

may seem best. The small proprietors show some desire to improve their modes of cultivation, and we shall have some suggestions to make on this subject.

117. But whilst we think that the Governments of the different Colonies should exert themselves in the direction of facilitating the settlement of the labouring population on the land, we see no objection to the system of large estates when they can be maintained under natural economic conditions. On the contrary, we are convinced that in many places they afford the best, and, sometimes, the only profitable means of cultivating certain products, and that it is not impossible for the two systems, of large estates and peasant holdings, to exist side by side with mutual advantage.

118. It must be recollected that the chief outside influence with which the Governments of certain Colonies have to reckon are the representatives of the sugar estates, that these persons are sometimes not interested in anything but sugar, that the establishment of any other industry is often detrimental to their interests, and that under such conditions it is the special duty of Your Majesty's Government to see that the welfare of the general public is not sacrificed to the interests, or supposed interests, of a small but influential minority which has special means of enforcing its wishes and bringing its claims to notice.

ESTABLISHMENT OF A DEPARTMENT OF ECONOMIC BOTANY IN THE WEST INDIES.

119. The practical work of cultivating new products must be left in the hands of private persons, whether owners of large estates or peasant proprietors, but there are certain directions in which assistance can be given by the State.

120. Your Majesty's West Indian possessions are, as a rule, not of large extent, and some of them, though possessing separate administrative and financial systems, are of very limited area. Communication between them is difficult, and with the outside world it is both tedious and expensive. The persons engaged in cultivation suffer from this state of isolation, and are often without any information as to what is being done elsewhere. The cultivator of one product is often quite ignorant of the best means of cultivating any other, and does not know whether his soil and climate might be better adapted for something else. These remarks have special reference to the small cultivators, but they are not wholly inapplicable to persons interested in the larger estates.

121. The botanical establishments in the larger Colonies, such as Jamaica, Trinidad, and British Guiana, have already rendered considerable assistance in improving agricultural industries, and they are capable of being made increasingly useful in this respect. In the Windward and Leeward Islands and Barbados, small establishments called botanic stations were established a few years ago on the advice of the Director of Kew Gardens, and the results, though not yet extensive, have been of a distinctly promising character. It is evident that to grapple with the present circumstances, there is required for the smaller islands a special public

department capable of dealing with all questions connected with economic plants suitable for growth in tropical countries, and we recommend the establishment of such a department, under which should be placed the various botanic stations already in existence. These stations should be enlarged in their scope and character, and be organised on the lines found so successful in Jamaica. In the latter Colony it is admitted that intelligent and progressive action in the direction of encouraging a diversity of industries has produced most satisfactory results. To achieve this result has however, taken more than 20 years of persistent effort, and the Government has spent more than 100,000*l.* during that period on its botanical establishments. The department has distributed seeds and plants at nominal prices by means of the post office, Government railways, and coastal steam service; it has supplied information orally, or by means of bulletins, regarding the cultivation of economic plants, and has encouraged the careful preparation of the produce by sending agricultural instructors on tour through the Island to give lectures, demonstrations, and advice.

122. The special department recommended for carrying on similar work in the Windward and Leeward Islands should be under the charge of a competent Imperial officer, whose duty it would be to advise the Governors in regard to all matters affecting the agricultural development of the islands. He would take part in consultations with the object of improving agricultural teaching in colleges and schools, and of training students in agricultural pursuits, and would attend to the preparation of suitable literature on agricultural subjects. The existing botanic stations should be placed under his supervision, and the charge of maintaining them transferred to Imperial funds. Each botanic station would be actively engaged in the introduction and improvement of economic plants, and in propagating and distributing them throughout the island. It would carry out the experimental cultivation of new plants to serve as an object lesson to cultivators, and it would be prepared to give the latest information to inquirers regarding economic products, and to provide suitable men as agricultural instructors. To effect all this will require funds entirely beyond the present resources of the smaller islands. We are, therefore, of opinion that as the necessity for such a department is urgent, the cost should be borne by the Imperial Exchequer.

123. The promising experimental work connected with raising new varieties of canes, and increasing the production of sugar by the use of manures and other means should receive special attention. The cost of some of this work would be a legitimate portion of the charge above stated. The chief experiments might be carried on as hitherto by the officers in charge of them in British Guiana, Barbados, and Antigua, but continued and extended, if found desirable, in Trinidad and Jamaica. In addition, the botanic stations in the Leeward and Windward Islands, would maintain nurseries for the introduction of all new and promising canes, and would undertake the distributing them within their respective spheres of action. A memorandum by Dr. Morris on this subject containing detailed proposals which we generally approve, is printed as an Appendix to this Report.

124. In dealing with the question of introducing new industries into the West Indian Colonies, or of extending existing industries, it must be borne in mind that for many of the special products of the West Indies there is only a limited demand. There is, for example, a comparatively large market for coffee, but not for such products as arrowroot or nutmegs, and if they were extensively grown in a number of the Islands they would soon cease to command a remunerative price. This has actually happened in the case of arrowroot.

EDUCATION :—ELEMENTARY, AGRICULTURAL, AND INDUSTRIAL.

125. In the course of our stay in the West Indies our attention was frequently called to the question of the progress of general education, and we obtained a considerable amount of information on this subject. There has been a marked increase of expenditure on this account in recent years, and, no doubt, the efforts made for the extension of education have been largely successful. The total expenditure on education amounted to about 95,000*l.* in 1882, and to nearly 180,000*l.* in 1896, showing an increase of about 90 per cent. It may be hoped that in Jamaica and Grenada, and probably in Trinidad also, it will not be found necessary, on financial grounds, to curtail this expenditure, but if the sugar industry fails in British Guiana and in the islands not mentioned above, the revenue may be quite unequal to the maintenance of the whole of the existing schools.

126. At the present time a system of training in agricultural occupation is much needed. We think that some, at least, of the botanic stations should have agricultural schools attached to them, where the best means of cultivating tropical plants would be taught, and if elementary training in agriculture were made a part of the course of education in the public schools generally, the Botanic Department would be in a position to render valuable assistance.

127. Agriculture, in one form or another, must always be the chief and the only great industry in the West Indies, but a system of training in other industrial occupations, on a limited scale, is desirable, and would be beneficial to the community.

ESTABLISHMENT OF A TRADE IN FRUIT :—SHIPPING FACILITIES.

128. There are good grounds for thinking that the West Indies might profitably grow fruit for export in larger quantities than at present. The fruit trade between Jamaica and New York has already attained important dimensions, and it seems possible that a similar trade might be established with some of the other Islands.

129. In time it might be found practicable to send fruit to the London market. If this could be done, the gain to the whole of the West Indies would be very great. We believe that the opportunity of selling their fruit cheaply in London would be of

the greatest value, and there would be no risk of the trade being interfered with by hostile tariffs. If a number of steamers were regularly employed in such a trade they would, no doubt, carry British products to the West Indies on their return voyage, and to a certain degree reduce the loss of trade which has been caused by the diversion to the United States of West Indian sugar and of the Jamaica fruit exports.

130. The difficulty of establishing such a trade is due to the fact that a considerable amount of capital would be required, and that there would be serious risk of mistakes and loss whilst the business was in the experimental stage. At present there is only the small local demand for fruit in most of the Islands, and consequently fruit is neither grown in large quantity nor of the best quality.

131. It cannot be expected that large quantities of fruit should be grown until there was an assurance that vessels would be forthcoming to convey it to market, and good ground for believing that it could be sold at a profit.

132. On the other hand, it is improbable that shipowners would provide vessels for conveying the fruit to market until they were satisfied that the fruit would be forthcoming and the fruit trade permanent.

133. We think that the prospects of success are such that the experiment should be tried. The Botanic Department, which we have recommended, should give instruction as to the best means of cultivating the fruits that are likely to find a profitable market, and of packing them for conveyance on board ship, while the Governments of the Islands which are most favourably situated with reference to the New York market should encourage the growth of such fruit. A subsidy might be granted for some years to secure the establishment of regular steam communication from St. Vincent and Dominica to the United States, with a view to the export of fruit to New York, and if the experiment proved successful, the scheme might be extended to other Islands. In view, however, of the large expenditure which such an attempt must involve, and of the uncertainty, at present, of the result, we do not recommend that any experiment should be carried, in the first instance, beyond the limits we have just indicated.

134. Representations were made to us that the Royal Mail Steam Packet Company, which receives a large annual subsidy for the carriage of mails, contributed jointly by the Imperial and Colonial Exchequers, gives insufficient facilities for the conveyance of fruit or other perishable produce to England or between the Colonies, and charges excessive rates of freight on such produce. The opinion is also prevalent that the voyage between England and Barbados is unnecessarily protracted.

135. It is questionable whether the Colonies in the present state of their public finances can justifiably afford the high subsidies they now pay for the sake of the present postal service only, more especially as it might not be impossible to make other more economical, if somewhat less efficient, arrangements.

136. We do not desire to recommend that the West India mails should, after the expiration of the present contract, be sent

via New York ; but we think it well to point out that communication by this route would offer greater commercial advantages to some of the Colonies than the present arrangements ; and that the time occupied in the transit of mails need not, in all cases, be greater, and, in the case of Jamaica, would be less than now.

137. It will be sufficient for us to suggest that endeavours should be made to ascertain, at a sufficiently early period, before the expiration of the present contract with the Royal Mail Company, whether alternative tenders offering greater advantages cannot, on sufficient notice, be obtained from other shipping companies, or at any rate to secure that under the next contract, the mail service shall be conducted in a manner better adapted to the more pressing needs of the Colonies in their present condition.

INTER-COMMUNICATION BETWEEN THE DIFFERENT COLONIES.

138. It is of great importance that there should be cheap, regular and frequent means of communication between the different Islands. The want of such facilities was specially brought to our notice in many of the Colonies.

139. Such means of communication will assist, or even create, trade in local products, will tend to remove that condition of isolation which exists at present, and will enable labourers to move freely to the best markets for labour, a result which is of special importance at a time when many persons are likely to be thrown out of employment in some of the Islands.

140. Various proposals have, we understand, been put forward, and some experiments tried, for establishing such means of communication, which have fallen through for lack of funds and from other causes.

141. Without attempting to prescribe in detail the arrangements that should be made for establishing easy communication by steamers between the Colonies, we may indicate in general terms the facilities which we recommend should be provided.

142. The Islands of Grenada and St. Vincent should be connected with Trinidad and Barbados by a steam service, affording facilities for the shipment of perishable produce and providing for the transit of passengers at low rates of payment.

143. Grenada, St. Lucia, and St. Vincent form at present the Government of the Windward Islands, and it would be convenient to that Government, especially if its headquarters are retained at Grenada, that the Island of St. Lucia should be included in the circuit of the proposed service. The interposition of a call at Barbados between St. Vincent and St. Lucia would no doubt be attended with some disadvantage, but the establishment of easy communication between Barbados and all the other Islands of the Windward group is of an importance which outweighs this consideration.

144. Similar means of inter-communication are required in the Leeward Islands, and these might be provided by arranging that

the steamer running from Barbados to St. Lucia should proceed to Dominica, Montserrat, Antigua, Nevis, and St. Kitts, and return within the week, after completing the circuit.

145. The maintenance of frequent communication between Tobago and Trinidad is also desirable, and the present service between these islands could be improved by arranging that the steamer connecting Barbados and the Windward Islands with Trinidad should call at Tobago, thus giving also direct means of transit between Barbados and Tobago, an object which appeared desirable to some of the persons who gave evidence before us in the latter Island.

146. The complete double service suggested could be carried out by two steamers of moderate size, each running from Trinidad to Antigua one week and from Antigua to Trinidad the next, so as to give through communication between all the Islands by a weekly service each way.

147. The subsidy required need not be of very large amount.

AGRICULTURAL BANKS AND STATE LOANS.

148. During our stay in the West Indies, the want of what was called "cheap money" was frequently and strongly brought to our notice, and it was urged that private persons engaged in agriculture should be enabled, by the assistance of the State, to obtain loans of money at a low rate of interest.

149. Owing to the small size and the isolation of many of the Colonies, banking facilities are no doubt limited, and there is a want of competition; but the main cause of the inability of agriculturists to obtain loans, as well as of the high rates of interest which are sometimes charged, appears to us to be the risk of loss which is inseparable from business of this class, especially in the present distressed state of the sugar industry.

150. We do not doubt that in some cases; and under very careful management, advances of money by the State, or on a State guarantee, would be beneficial to agriculturists, but any system of State loans, or a State guarantee, is so liable to be mismanaged, and so likely to end in the loss of the money advanced, that we hesitate to recommend its general introduction.

151. The owner of a sugar estate who found himself in difficulties, and whose credit had fallen so low that he could not obtain advances from a private institution, or could only obtain them on very onerous terms, would no doubt be glad to obtain a loan from the State at a moderate rate of interest, but we think it would be unwise, in the present state of the sugar industry, to engage the public resources in what would be a very risky speculation.

152. The class of small cultivators who would be likely to take advantage of such advances are, as the evidence given in Grenada and elsewhere indicates, both open-handed and improvident: they would readily take loans at a low rate of interest; and they would doubtless repay the money when the time came if they were in a position to do so; but we greatly doubt whether they would, as a body, make any special provision beforehand to enable

them to repay it, or to guard against the innumerable accidents that might interfere to prevent them from paying. The experience of the different Colonies as regards the payment of direct taxes, and the payment of instalments of the purchase money of Crown lands as they fall due, is not encouraging.

153. At the same time we are not prepared to say that under special circumstances a Colony might not be justified in assisting agriculturists to obtain small loans at a low rate of interest to assist them in improving their land, but we think it should be left to the Governments immediately concerned to move in the matter in the first instance, and that the risk of loss should be borne by Colonial resources, and should not be thrown on the Imperial Exchequer. * * * * *

PART II.

CONDITION AND PROSPECTS OF THE SEVERAL COLONIES.

173. We have dealt in Part I. of our Report with the general condition of Your Majesty's West Indian possessions as a whole, the prospects of the sugar industry, the consequences of a failure of that industry, and the measures to be adopted in view of such failure.

174. In the present portion of the Report we propose to take up the case of each Colony separately, to state briefly its economic condition and prospects, and the state of its finances; to indicate any modifications which must be made in our general proposals to adapt them to the special requirements of each possession, and to set forth any further recommendations we may have to make, and which are of local rather than general application.

175. The agricultural capabilities and wants of each Colony have been dealt with by Dr. Morris in a series of separate reports on British Guiana and Your Majesty's West Indian Islands, and it will not, therefore, be necessary for us to enter into the question of the resources of each possession as fully as would otherwise have been the case.

i.—BRITISH GUIANA.

176. We landed at Georgetown, the capital of British Guiana, on the morning of the 27th of January 1897, and left again on the afternoon of the 6th of February. During five days of our visit we took evidence in public, examining 49 witnesses, and in other ways endeavoured to obtain a knowledge of the condition of the Colony for the purposes of our Report. We visited and inspected two important sugar estates, and held conversations with many persons of much experience in the Colony.

177. British Guiana alone, of the British sugar-producing Colonies in the West Indies, is situated on the mainland of America, and it is the most southerly of all these Colonies. It is

very much larger than all the British West Indian Islands put together, and the land occupied by cane cultivation is all on or close to the coast, and lies so low that extensive sea defences and a system of steam pumping must be maintained. The greater portion of the Colony, considerably more than 99 per cent., is uncultivated and unoccupied, being either covered with forest or consisting of grassy and swampy plains, known as savannahs.

178. The total area is officially estimated at 65,836,000 acres, and the extent under sugar cane at 66,908 acres. The exports consist almost entirely of sugar and gold. In addition to the cane cultivation there is a considerable production of articles of food for local consumption, and some attempts are being made on a small scale to open up the Colony and to restore cultivation which formerly existed in parts of the interior along the rivers, not far from the sea coast, but which has for many years been abandoned.

179. The population at the time of the last Census in 1891 was 278,328, and is, no doubt, increasing. Of the population in 1891, Europeans, other than Portuguese, were 4,588, Portuguese 12,166, Aborigines 17,463, Africans 3,433, Black and Coloured 141,531, and East Indians 105,463.

180. The leading features of the Colony and its general capabilities are fully described in the report of Dr. Morris. From that report, and from the evidence received by the Commission, it is clear that British Guiana is in the perilous position of being dependent on a single agricultural industry, the production of sugar, that industry being in a state of extreme depression and threatened with possible extinction, whilst it is difficult to see how it can revive or even be maintained under present conditions.

181. The exports of sugar, molasses, and rum, which in the five years 1881 to 1885 were valued at 12,038,699/., fell to 9,305,880/., in the next five years, and in the five years 1891-92 to 1895-96, to 8,276,916/., or an average of 1,655,383/., per annum. But in the year of account, April 1895 to March 1896, the value of such exports was only 1,183,000/., and in the calendar year 1896, 1,280,000/.. In the years preceding 1885 the average annual value of sugar products was well over two millions sterling, and indeed in some years almost three millions. There has thus been a heavy falling off in the value of the exports of sugar products, whilst the value of other exports, which in 1882 amounted to 60,000/., excluding gold, was, in 1895-96, only 35,000/.. The export of gold, however, had increased in value from 3,000/., in 1882 to 450,000/., in 1895-96.

182. The quantities of sugar exported in the three periods just referred to were, for 1881-85, 552,687 tons; for 1886-91, 579,924; and for 1891-92 to 1895-96, 547,282, showing that the gross output has been comparatively well maintained, notwithstanding the great fall in value.

183. The revenue, which was 458,600/., in 1882, rose to 602,700/., in 1893-94, and fell to 588,200/., in 1894-95, and to 567,700/., in 1895-96, and is understood to be still very markedly falling off. The expenditure, which was 429,000/., in 1882, was in 1895-96,

596,500/. The debt is now nearly one million sterling, and the charges for interest and sinking fund, which in 1882 were 14,277/., are now about 48,000/. a year.

184. The financial position of the Colony is, therefore, not encouraging, and taxation under present circumstances can hardly be increased. The Colony is certainly not in a position to stand the strain of additional outlay, even for the relief of distress or the opening up of better communication with the interior than now exists. The revenue depends chiefly on duties of customs and excise, and may be expected to diminish seriously as the purchasing power of the community falls off, owing to reduced wages and loss of employment arising from contraction of the sugar cane cultivation. * * * * *

189. The report of Dr. Morris shows that whilst British Guiana now depends on sugar products for the maintenance of the Colony, it is certain that under the most favourable circumstances it must be a considerable number of years before other industries could be so far extended as to give employment to the number of people now employed on sugar estates or deriving their living from the sugar industry. Indeed it is hardly possible that all the other industries in the Colony, apart from gold, which will be presently spoken of, could for many years to come produce a return in any way equal to that which has been obtained from sugar and rum.

190. It would, therefore, be most desirable in the interests of the Colony to maintain the production of sugar, as well as to encourage the cultivation of all the products mentioned by Dr. Morris, which have been neglected in the past. Foremost among these may be named rice, coffee, cocoa, fruits, and cocoanuts, whilst something may be expected from attention to the forests and from cattle raising.

191. Rice to the value of 180,000/. was imported in 1895-96 for consumption in the Colony. Rice of excellent quality is already grown in British Guiana, and every effort should be made to produce locally all that is wanted of this article. Coffee and cocoa to the value of 7,560/. were also imported, though there is no reason why the coffee and cocoa consumed should not also be produced there.

192. The gold industry is deserving of special attention. The value of the gold exported since the year 1890 has been close upon three millions sterling, and although the production is now less than in 1893-94, when it was of the value of 510,710/., it amounted in the course of the year 1896 to 461,000/. The Government should endeavour, by the employment of qualified experts, to ascertain what are its future prospects, and if the result should be promising, every facility should be given for the development of the industry by private enterprise. * * * *

196. It is difficult to exaggerate the evils that would arise from a collapse of the sugar industry. Thousands of labourers and others would be thrown out of employment; it might be necessary to support large numbers of coolies and to repatriate them at a heavy cost, which the planters could not meet, and local resources would be quite insufficient to enable the Government to be carried on in any way at all worthy of a civilised nation.

197. The evidence shows that already there is much poverty in the Colony, especially in the Capital, among skilled artisans and mechanics as well as among persons above the labouring class, whom it would probably be impossible to settle upon the land.

198. In British Guiana, indeed, as in some of the other West Indian Colonies, it is difficult to see how a crisis can be averted and heavy demands on the mother country avoided, unless something can be done to save the sugar industry, or at all events to prevent any early or sudden collapse. The very difficult problem whether any general measures can be taken with the object of saving the industry, either by effectual action for the abolition of the bounty system or by the imposition of counter-vailing duties has been dealt with in the first part of this Report. If any such measures are practicable they would need to be applied promptly; but in any case we wish to emphasise our conviction that even if the sugar industry can be maintained it is essential that the Government of British Guiana should do all in its power to open up communications, to encourage settlement in the interior lands, to arrange for proper instruction of the settlers in agriculture, to employ scientific and experienced mineralogists to survey and report on the gold fields, to provide for the conservation and utilisation of the forests, and in every way to encourage the development of the industries indicated by Dr. Morris. * * * * *

200. It is, indeed, most satisfactory to find that so competent a judge as Dr. Morris considers that there is a possibility of British Guiana becoming in course of time a very productive as well as a very important dependency of the Empire, but no such result can be expected for many years.

201. To effect such development as seems possible in British Guiana will, moreover, be a work for which resources will not be readily forthcoming. New industries are not likely to succeed on the front lands where sugar is now grown. The development of these industries will not merely entail a change of cultivation, but the opening up of new lands in the interior and a migration thither of a considerable part of the population.

202. There can, therefore, be no question of the vital importance to the Colony of maintaining the sugar industry, if possible, and of giving every encouragement to the planters in their efforts to do so. At the same time, if the sugar industry is maintained, the Government must be very careful not to allow its influence to retard the settlement and opening up of new lands, which have hitherto been left inaccessible and undeveloped, partly owing to the interest of the Colony having hitherto been entirely concentrated on sugar.

203. It will be very difficult to provide funds for the necessities of administration if a collapse of the sugar industry takes place, but considerable economies have been either carried out or decided upon. No doubt other reductions could be made under the pressure of circumstances, but these reductions would go only a small way towards meeting the shrinkage of income and the heavy additional charges which are inevitable if the sugar industry dies out, and it might probably prove impossible to meet

existing charges of an obligatory character, among which interest on debt, pensions, maintenance of the poor, and payment of police may be classed. * * * * *

205. It is only just, before concluding these observations, to say that the planters in Guiana have not been behindhand in efforts to improve the cultivation and the manufacture of sugar, and that their efforts have been attended with remarkable success. The amount of sugar and rum produced has been well maintained, and the cost of production has been greatly reduced. If it had not been for these efforts, and for an expenditure on machinery which during the last fifteen years has amounted to 1,307,500/., the sugar industry must have practically succumbed. The evidence given, and the information obtained in various ways, make it clear that though estates have struggled on, and a few have even made some slight profit, many of them cannot be carried on at present prices, while a material fall would compel the proprietors of most of them to cease cultivation.

206. If such a crisis should arise, and it may come very soon, the Government could only be carried on even in the most economical manner by the aid of subventions from the Imperial Exchequer, and a very heavy charge would probably have to be met for the repatriation of Indian coolies. * * * * *

ii.—BARBADOS.

208. We landed at Bridgetown, Barbados, in the course of our voyage to British Guiana, but did not on that occasion transact any formal business. We returned to the island on the morning of the 16th of February, arriving from St. Vincent, and remained until the afternoon of the 24th of the month. We took evidence publicly for four days, hearing 39 witnesses, and also visited various parts of the island and inspected several sugar works.

209. The condition of Barbados is markedly different from that of any other Colony in the West Indies. It is very thickly populated; the area is 166 square miles, and the number of inhabitants 186,000, giving an average of 1,120 to the square mile. The whole island is already occupied and developed, the total acreage is 106,470 acres, of which 100,000 are stated to be under cultivation. There are no Crown lands, no forests, no uncultivated areas, and the population has probably reached the maximum which the island can even under favourable circumstances support.

210. The climate is healthy; there are many white families, numbering altogether some 20,000 persons, most of which have for generations looked upon Barbados as their home; and the attachment of the inhabitants to the island and to the traditions of the past is exceedingly strong.

211. With so large a population the labour supply is abundant, and though wages have lately been reduced, there have not hitherto been any serious labour difficulties. The island has been settled for so long and so many generations have lived side by side, that a general understanding appears to have grown up of the respective habits and requirements of different classes. This

circumstance and the density of the population are no doubt the reasons why there are not in Barbados the complaints of the supply, or of the efficiency, of labour, which are so frequent elsewhere.

212. In Barbados there is substantially but one industry, one product, and one export—that of sugar,—nor does the island appear to be suited for the growth of either coffee, cocoa, or fruit, on a scale of any commercial importance.

213. The value of the total exports of the produce of the Colony in 1882 was 1,004,000/., the value of sugar products exported being 993,000/.; that of the total exports in 1890 was 1,041,000/., of which sugar exports made up 1,032,000/.

214. In 1896, when the value of the exports had fallen, the proportion contributed by the sugar industry remained about the same; the figures were then 577,000/., for the total exports of produce of the Colony and 558,000/., for sugar exports.

215. The quantity of sugar exported in 1882 was 49,458 tons, in 1890, 76,735 tons, being the largest amount recorded within this period, and in 1896, 44,460 tons. The crop in 1895 was very seriously affected by drought and disease, and in 1896 to some extent by the latter cause.

216. There are no large central sugar factories, the mills are small and many of them primitive, a large proportion of them being worked by wind power, and the sugar exported is chiefly muscovado. But the industry has hitherto survived under these conditions, owing to the fact (1) that the manufacture of sugar by the old processes is thoroughly well understood and the cultivation of the cane very carefully carried on; (2) that there is an abundant labour supply; and (3) that the soil produces a cane containing juice of exceptional richness.

217. The average net cost of production was given to us as 8/ 12s. per ton, but, without going too closely into the accuracy of such figures, it is certain that at present prices, and under present conditions, the industry cannot hold its own, and a very serious reduction of it is imminent.

218. It may be said, generally, that, whilst estates in favourable situations with favourable seasons may just make a profit, even at present prices, others are being worked at a loss. The estates in Barbados are, as a rule, very heavily mortgaged, and advances for carrying on cultivation are only to be obtained with increasing difficulty. Such advances are becoming more necessary every year, as the working capital of the proprietors is exhausted. Any additional adversity, such as a bad season or two, would cause great disaster.

219. Many estates are now being carried on under the Agricultural Aids Act, which makes money advanced for working an estate a first charge on the growing crop. The amount borrowed yearly in this way is increasing, and amounted to 100,661/., in 1896.

220. It must be borne in mind, when judging of the figures given, for the working of estates in 1896, that there was a considerable rise in the price of sugar in the early months of that year. This rise was generally attributed to speculation founded upon the great interference with production in Cuba. Whatever

its origin, it did not last, but it did make the average price of sugar higher in 1896 than it is at present, and enabled some estates to show better results for that year than they could at existing prices.

221. As is usual in the West Indies, the public revenue is derived mainly from import duties and excise, and depends therefore chiefly upon the welfare and the purchasing power of the wage-earning population. The reduction of wages has diminished their purchasing power, and the effect of this upon the revenue has been very marked. * * * * *

223. In 1895 and 1896 the rates of taxation were largely increased, with the object of restoring the balance of the finances, and the revenue for 1896 rose accordingly, but there was nevertheless a deficit of 6,988/. on the transactions of that year, following one of 5,763/. in 1895. The amount of the funded public debt of the island is now 405,100/., and the provision for interest and sinking funds in the estimates for 1897 amounts to 19,125/.

224. Our attention was directed both by the Auditor-General and the Colonial Secretary to the great excess in value of imports over exports. The figures for the last three years are as follows, including re-exports :—

	Year.	Imports.	Exports.
		£	£
	1894	1,279,334	984,511
	1895	956,921	587,298
	1896	1,048,886	758,227

225. It was suggested to us that some of this excess is being paid for out of capital, and that the imports have been kept up by a drain upon the resources of the island, which cannot continue. This may be so, but some allowance ought to be made for special circumstances, such as public expenditure in the island out of loans, military expenditure by the Imperial Government, remittances made by emigrants, and purchases made by crews or on behalf of shipping in the harbour.

226. Unless some improvement in the sugar trade takes place, the revenue will continue to decrease, while a serious reduction of the sugar industry, such as is probable, would make it impossible for the Government to pay for the administration of the Colony.

227. The state of things in Barbados and the outlook may be summed up by saying that there is but one industry upon which the population and the revenue are absolutely dependent; that this industry is now without credit, and is to a considerable extent being carried on at a loss, while, for special reasons, the distress caused by the failure of it will be exceptionally severe, and there is practically no other industry or industries which can be substituted for the production of sugar so as to maintain the population and provide sufficient public revenue.

228. A further circumstance which will to some extent affect the prosperity of Barbados is the intended transfer of the Imperial troops to St. Lucia. We were informed that the presence of the troops leads to a yearly expenditure in the Colony of about 50,000% of Imperial money. This causes a demand for local products which will be lost when the troops are removed.

229. No time, therefore, must be lost before deciding upon such measures as can be taken.

Settlement on Land.

230. As sugar lands fall out of cultivation they can either be sold in small lots or leased at low rents to small cultivators. This policy would probably be adopted at once by the Court of Chancery in the case of sugar estates which clearly could not be carried on except at a loss; and in this way a certain portion of those who can no longer find employment in the sugar industry might obtain the means to support themselves by growing ground provisions or other crops, which will contribute to the food supply of the island and make it less dependent upon outside sources. In this matter the Court of Chancery must, of course, be guided by the interests of the persons whom it represents, but it may be possible for the Government to facilitate the breaking up of estates in this manner by purchasing and re-selling them in small lots. * * * * *

Emigration.

233. Emigration is a natural and, in view of complaints as to want of labour elsewhere, at first sight a promising suggestion. A considerable number of Barbadians do at present emigrate, permanently or temporarily, in search of subsistence, and many of them make excellent colonists in their new homes. But such experiments as have been made with the special object of supplying Barbadian labour to sugar planters in other colonies have not proved satisfactory. More than one reason was given for this, which will be found in the evidence, but apart from this difficulty it is certain that if the sugar industry fails in Barbados, it will fail also in the other Colonies, and there can be no demand in them for labourers on sugar estates. In other words, the greater the pressure of want which arises in Barbados, the less will be the opportunity of finding employment for emigrants on sugar estates elsewhere, though, on the other hand, if the sugar industry fails the pressure of want will doubtless strengthen the desire to emigrate.

234. Strong objections were raised by witnesses to the form which emigration takes at present. It was urged that the haphazard emigration of able-bodied men, leaving wives, children, or relations unprovided for at home, was not an advantage, but we do not see how such emigration can be interfered with even were it desirable to do so.

235. It would seem that the only form in which assisted emigration may be at the same time possible, desirable, and successful, is that of removing whole families and placing them in settlements in less thickly populated countries. Where, as in British Guiana, Trinidad, and Dominica, there are large tracts of

unoccupied land, it is possible that this may be done to advantage, and, if so, arrangements with this object should certainly be either made or facilitated by the Governments concerned. But such action, though under any circumstances desirable, can hardly be rapid or on a scale large enough to absorb more than a comparatively small number of the surplus population of Barbados.

236. In the event, therefore, of a failure of the sugar industry, emigration can, at best, prove but an exceedingly partial and inadequate remedy for the distress which will be produced.

237. In Barbados, as in other islands, retrenchment in public expenditure is inevitable. The present cost of government and administration is on a scale which is out of proportion to the reduced resources of the community. In former days, when the sugar industry was flourishing, such a scale of expenditure was natural, and we have no wish to say that in Barbados, at any rate, it was not justifiable. But the Colony cannot afford it now. * * * * *

240. In the maintenance of the sugar industry in some form and to some considerable extent lies the only hope of supporting in the island any large proportion of the present population of Barbados. We do not think that the maintenance of the industry, at any rate in some portions of the island, need be despaired of even in the present condition of markets.

241. Attention has already been drawn to the fact that large central factories do not exist in the island. In the present circumstances of the sugar trade there is no prospect that these will be established by private enterprise. The industry has no credit and capital is not forthcoming.

242. Application has already been made to the Government to enable central factories to be started. An Act was passed in 1895 to empower the Government to give assistance towards the establishment of sugar factories by public loans or guarantee. Her Majesty's sanction to this Act has hitherto been withheld for reasons which would, under ordinary circumstances, be conclusive. But the circumstances are not ordinary, and if relief is to be given to the sugar industry at all it appears to us that the establishment of central factories is the best form for it to take. * * * * *

245. We, therefore, recommend that where owners of estates desire to combine, as it is stated they are still ready to do, Government aid should be given for the establishment of central factories.

246. It cannot be denied that in giving such aid either by loan or guarantee, the Government will run the risk of financial loss. On the other hand, if nothing is done to help the sugar industry, there is the certainty of great distress, of considerable expenditure to relieve it, and the probability of prolonged difficulty in finding employment anywhere for the population.

247. After taking these considerations into account we are of opinion that aid to maintain the sugar industry in Barbados may well be the least costly method in which the obligations of Government can be discharged. From the point of view of the welfare of the inhabitants it would certainly be the most satisfactory.

248. There are also special circumstances in the case of Barbados, which will tend to promote the success of the measures which we recommend. The labour supply is more abundant and effective than in any of the other colonies, and the soil of Barbados is especially well suited for growing sugar-canes with exceptionally rich juice. These two causes should enable central factories in Barbados to turn out sugar at an unusually low cost of production compared with that which is the average elsewhere.

249. In the evidence given by the planters, figures are brought forward which, taking into account both the increased quantity and quality of the yield from a central factory, show a prospect of a gain of 40 per cent. over the old muscovado process. And even if these figures be regarded as too sanguine, it seems to us certain that the gain would be very considerable and that it would be possible for central factories to be worked at a profit even when the price of sugar was too low to enable the present muscovado works to be remunerative. * * * * *

253. It is essential under the circumstances that the capital required to set up central factories should be obtained on the cheapest possible terms, and we think the Imperial Government should find the money and lend it to the Colony at the same rate of interest at which it is borrowed. If the Government of Barbados is required to borrow the money on its own credit, the cost will be greater, and the liability of the Imperial Government will not be appreciably reduced; if general distress arises, which the Colony is unable to relieve, it will be impossible for the Home Government to avoid giving assistance. The Colonial Government should, of course, be held responsible to the Imperial Government for both principal and interest.

254. We do not propose to attempt to settle all the details of the system under which the central factories should be worked, and will content ourselves with offering a few suggestions.

255. It does not appear necessary that the Government should insist, as a *sine quâ non*, on the estates being mortgaged for the repayment of the loan. To do so would raise many difficulties in connexion with the existing mortgages, and if the central factories prove unsuccessful the estates would be almost valueless, and the mortgages to Government on them worthless. It would be sufficient if the representatives of the estates were to undertake for a number of years to send the canes grown by them to the central factories. They might be paid a low price per ton for the canes as received, calculated in such a manner as to barely cover the cost of production, or nearly so. The next charge on the profits should be the interest and a sinking fund of one per cent. per annum. Any balance of profits remaining should be divided between the owners of the estates in proportion to the quantity of canes supplied by each; but with the provision that of the profits in excess of a certain amount one half should go to the owners of the estates and one half be added to the sinking fund. When the loan has been repaid with interest the central factories should become the property of the owners of the estates.

256. The United States market is of especial importance to the trade of Barbados. It is from this market that the island chiefly gets its food supply; it is to this market that practically the whole of its sugar is sent. * * * * *

iii.—TRINIDAD.

259. We proceeded direct from Barbados to Trinidad, and landed at Port of Spain, the chief town of the Colony, on Wednesday, the 25th of February 1897. We held four public sittings in which we took the verbal evidence of 34 witnesses. In addition to other opportunities of which we severally took advantage to acquaint ourselves with the characteristics and condition of the island, we were enabled to inspect the country along the line of the Government Railway, and the extension now being constructed towards the Sangre Grande, and to visit a cocoa estate. We also visited Princetown, the Naparima district, and San Fernando, in the south of the island, drove through the principal cane-farming and sugar-producing district of the Colony, and inspected the Usine Sainte Madeleine, the largest sugar factory in the British West Indies, and the estates connected with it. We left Port of Spain on the 5th of March, and passed round the southern and eastern shores of the island in the Talbot on our passage to Tobago.

260. The island of Trinidad is situated close to the Venezuelan coast of South America. It has an area of about 1,120,000 acres, of which 800,000 acres are held to be cultivable. Of the cultivable land 434,000 acres are in the hands of private owners, and 366,000 acres are Crown lands. It is impossible to state the precise extent of land that is under cultivation at the present time, but there is still a large extent of cultivable land in the island unoccupied and uncultivated, and much of it is virgin soil.

261. The total population may be taken at 245,000, of whom fully two-fifths are immigrants from the East Indies or their descendants.

262. The soil is remarkably fertile, and varies in its character ; some portions of the island are well suited for the production of sugar, others for cocoa, and on certain tracts near the sea cocoa-nut trees grow freely.

263. Trinidad exports about 50,000 tons of sugar yearly, and the exports of molasses and Angostura bitters, of which rum is the basis, are also of some importance.

264. The cocoa produced in the island bears a high reputation in the market ; and its production has largely increased in recent years. There is also a considerable export of cocoa-nuts, and the island appears to be well suited for the production of coffee and fruits ; the latter industries are of little importance at the present time.

265. There is a steady flow of population from the other West Indian islands to Trinidad, and notably from St. Vincent and Barbados. Some of the immigrants settle in Trinidad, others return to their homes after a time. There is also a considerable immigration of coolies from the East Indies, who are under indentures to serve for five years, and who after a total residence of 10 years become entitled to return passages.

266. At the period of our visit to Trinidad there was a certain amount of depression, due to the lower prices for cocoa and cocoanuts, as well as to the great fall in the price of sugar and

molasses ; but the only apparent danger of a serious nature to the future prosperity of the island lies in the possible collapse of the sugar-cane cultivation.

267. The importance of this industry to the Colony is best shown by a consideration of the proportion which the value of the exports of sugar, rum, and molasses bears to the value of the total exports.

268. The average yearly value of the total exports of native products and manufacture is stated at 1,335,000*l.* during the period from 1881 to 1885, at 1,437,000*l.* during the period from 1886 to 1890, and at 1,447,000*l.* during the period from 1891 to 1895 ; in the year 1896 the value was 1,363,349*l.*

269. The corresponding figures for the exports of sugar, rum, and molasses during the same periods were :

Year.				Sugar.	Rum.	Molasses.	Total.
				£	£	£	£
1881-85	...	...	...	755,000	2,000	59,000	816,000
1886 90	...	...	...	715,000	3,000	51,000	769,000
1891-95	...	...	...	658,000	4,000	46,000	708,000
1896	...	...	...	700,000	6,000	36,000	742,000

The bitters exported in 1896 were valued at 34,000*l.*, but this export would probably not be affected by any reduction in the area under sugar cane that is likely to occur.

270. It will be seen that, even at present prices, the sugar-cane industry furnishes quite one-half of the total exports of the Island of Trinidad.

271. The exports of cocoa have varied from a yearly average of 12,000,000 lbs., valued at 344,000*l.*, in the period from 1881 to 1885 to a yearly average of 22,000,000 lbs., valued at 550,000*l.*, in the period from 1891 to 1895. In 1896 the exports of cocoa came to 23,481,000 lbs., valued at 452,141*l.* There was a short crop of cocoa in 1896, and, owing to low prices, a portion of it was held back.

272. Asphalt from the well-known Pitch Lake of Trinidad is now an important item in the total export trade. The average yearly value of the exports of asphalt in the period 1891 to 1895 was 107,000*l.*, and the Colony derives a revenue from this source of quite 30,000*l.* yearly.

273. The majority of the sugar estates in the island are provided with modern machinery, and may be said to be fairly equipped for producing sugar by the most approved processes. Out of a total export of 53,822 tons of sugar only 3,850 tons were muscovado sugar. The evidence laid before us was, however, to the effect that, owing to the low price of sugar, the industry was in danger of very great reduction, the Joint Committee of the Agricultural Society and the Chamber of Commerce expressing the opinion that the sugar industry was "undoubtedly in danger of extinction."

274. We specially requested the Acting Governor of Trinidad to favour us with his opinion on this question, and in his letter

of 31st March 1897 he stated that if the condition of the sugar industry as to prices and prosperity remained unchanged, there was a certainty of serious reduction, if not of extinction, of that industry. He estimated that, under present conditions, the industry would be reduced by one-half in three years. The extent to which a struggling industry will be reduced within a definite period must, from the nature of the case, be a matter of doubt, but we see no reason for dissenting from the opinion which Sir Courtenay Knollys has expressed on this point. * * * *

278. Apart from the recommendations which we have made in Part I. of our Report, in connexion with the subject of experimental cane cultivation, and the work of the Botanic Department, we are unable to offer any practical suggestion for the adoption of measures that could be taken in the Colony for improving the condition of the sugar industry. The public burdens on the industry are not heavy, and it is to some extent assisted at the expense of the general revenues, which bear a portion of the cost of introducing East Indian immigrants. * * * *

280. It is recognised in the present day that the business of manufacturing sugar may often with advantage be separated from the actual cultivation of the canes. It is found convenient in many places that farmers should engage in the business of growing canes, and should sell the ripe cane to a central factory. This system is being tried, and with some success, in Trinidad, though a strong, and apparently well-founded, opinion has been expressed to the effect that, so far as can now be seen, the central factories in Trinidad can never depend entirely on canes so grown, but must, in order to ensure a continuous supply of canes for manufacture, possess a considerable amount of cultivation of their own. It was alleged that the presence of indentured coolies is essential to the maintenance of the industry, as only in this way could a reliable supply of labour be secured at all times.

281. The owners of sugar estates in Trinidad appear to be fully alive to the advantages of the cane-farming system, and anxious to introduce it as far as practicable. The general adoption of the system would be attended with many advantages, and we are of opinion that it is one which the Government might legitimately assist, where practicable, by providing means of communication to facilitate cane-farming in suitable localities. Both the Creoles and the East India immigrants prefer growing canes on their own plots to working as labourers on the estates, and they are willing to sell their canes at a price which is below the cost at which the estates can produce them.

282. In view of the probable reduction, in the immediate future, of the area of sugar-cane cultivation, and the serious effect which such reduction and the general depression of the industry must have on the welfare of the Colony, the chief remedial measures which we have to suggest are (1) the substitution of other agricultural industries for the cane cultivation; (2) the settlement of the surplus population on the land as peasant proprietors; and (3) the facilitating of access to foreign markets.

283. The practical work of carrying on new industries must be left in the hands of private persons, but, as we have already indicated in Part I., there are certain directions in which the Government can assist.

284. The Botanical Department in Trinidad should be entirely relieved of the business of ornamental gardening and the supply of ornamental plants, and should devote itself to the introduction and experimental cultivation of economic plants, and to attempts to secure improved varieties of such plants, and especially of sugar cane. It should comprise a branch for the teaching of tropical agriculture, and should form a centre from which teachers would be sent to give practical lessons in the cultivation of tropical plants and the selection of suitable localities for growing them.

285. Special and well-considered arrangements should be made for facilitating the settlement of the Creole and East Indian population as peasant proprietors on the Crown lands, and on any other suitable lands that may be, or may become, available.

288. We are, however, of opinion that special arrangements for the opening out of the Crown lands in small lots will not as a rule be popular with the persons who are interested in sugar estates in Trinidad. In such a Colony, with a sparse population and virgin soil waiting to be opened up, the sugar planters have experienced difficulties in getting at all times as much labour as they required at the prices which they were prepared, or could perhaps afford, to pay, and they have not looked with favour on any policy having for its object the opening out of the Crown lands to the labouring population.

289. We regret that any recommendation of ours should aggravate, or have the appearance of aggravating, even temporarily, the difficulties under which they at present labour, and which, for the most part, are not due to any fault of theirs, but we feel that we have no choice in the matter. Whatever the consequences to individuals may be, the position of your Majesty's possessions in the West Indies at the present time is such that every possible opportunity should be given to the native population of earning their livelihood otherwise than on a sugar estate, and that they should not be forced to depend longer than can be helped on the maintenance of a single and precarious industry.

290. Trinidad would share in the advantages of the subsidised steamer service which we have recommended to facilitate access to other markets and provide means for the migration of labourers between the islands.

291. It would also appear to be possible to develop a trade of some importance between Trinidad and Venezuela. At present there is a special differential duty of 30 per cent. *ad valorem* against goods imported into Venezuela from Trinidad. We trust your Majesty's Government will be able to secure the abandonment of this differential duty. It would also be desirable that arrangements should be made to store foreign goods in bond in Trinidad, which might afterwards be exported to Venezuela. At present goods which are subject to *ad valorem* duty pay a duty of 5 per cent. if landed at Port of Spain, and this duty is not refunded on export, and the goods are also subject to the special differential duty of 30 per cent. when landed in Venezuela on the ground that they are imported from Trinidad. * * * * *

295. In the meantime the Botanical Department in Trinidad should encourage the introduction and growth of the better descriptions of fruit, and give instructions as to the best means

of cultivation and of packing fruit for export. We are not without hope that in time it may be found possible to establish a large and profitable industry in fruit, to be sent from the West Indies generally to the New York and London markets.

296. The question of the probable financial position of the Government of the Colony in the immediate future is one of some importance. The taxation of Trinidad is not light; the total general revenue in 1882 was 396,282*l.*, of which about 297,700*l.* was from taxation. In 1896 the total was 577,140*l.*, of which about 438,000*l.* was from taxes, including 22,700*l.* from export duties and royalties on asphalt. Additional taxation could be imposed, and would bring in some revenue, but it is not desirable to impose additional burdens on the Colony unless in case of necessity. The expenditure of public money appears to have been on a liberal scale in past years, having risen from 403,871*l.* in 1882 to 594,462 in 1896, and though the conditions of the Colony may have justified such expenditure, greater economy will be necessary.

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301. If there is a great and sudden reduction in the sugar industry, there might be a considerable temporary expenditure in providing for labourers, and especially for East Indian immigrants. The expenditure would be very heavy if any large number of immigrants claimed, as they might do, to be returned to India at the public expense, but we are disposed to agree with Sir C. Knollys in thinking that there would not be any general desire on the part of the Indian coolies to return. In any case it will be more easy to provide at short notice for the settlement of coolies on Crown and other lands in Trinidad than it would be in British Guiana. There is, therefore, less probability of a sudden and overwhelming demand being made on public funds for return passages.

302. The question of the assistance given to immigration at the expense of the public revenue is one that requires careful consideration. We are of opinion that if any industry requires immigrants it should pay the whole cost connected with their introduction. It is argued that the introduction of immigrants is a benefit to the whole Colony, and that the whole Colony should pay a portion of the cost of introducing them. This view as to the introduction of immigrants being a benefit to the whole Colony is not held by those persons with whom the immigrants compete in the labour market, and if the argument were pushed to its logical conclusion it would follow that every industry should get a bonus from the State, as every industry is a gain to the whole community. It has, however, been pressed upon us by evidence which we cannot disregard, that at the present time, and under present conditions, indentured labourers are absolutely necessary to the carrying on of the sugar estates. It would be a calamity, not only to the owner of the estates, but to the general community, to take any steps that must have the effect of intensifying the existing depression, and, whatever our recommendation might have been if the question of State assistance to immigration were now raised for the first time, we are not prepared to say that such assistance should now be withdrawn. We are, however, of opinion that the number of immigrants to be

introduced every year should be reduced to the minimum that will suffice for the working of the existing estates, and that State assistance in aid of immigration should ultimately cease.

303. The system under which a large number of immigrants are allowed to settle in the West Indies retaining a claim to a return passage, and without any provision being made beforehand to meet the burden, if it should arise, is a dangerous one. If the sugar cultivation ceases it will be impossible to levy the cost from the estates, and in St. Lucia, where immigration has now ceased, the planters complain that they, in their present distressed condition, are paying for benefits which were received by a former generation.

304. On the whole, we are of opinion that, notwithstanding the critical state of the sugar industry, the resources of Trinidad will probably suffice to meet the claims against her if they are carefully husbanded, and if no delay takes place in the adoption of measures for enforcing greater economy in public expenditure.

iv.—TOBAGO.

305. We received in Trinidad verbal evidence as to the condition of Tobago (which is under the same Government) from three witnesses specially qualified to speak on the subject. We reached Scarborough, the chief town of the island, on the afternoon of Friday the 5th of March, and during the next morning we took evidence from 13 local witnesses at the Court House, whilst Dr. Morris inspected as much of the island as could be visited in the day. One of the Commissioners devoted part of the day to the same object. * * * * *

308. The chief industry was the production of sugar, but it has been a decaying industry for many years, and at the present time it appears to be on the verge of extinction. The only cane now grown on the island is cultivated by small farmers on the metayer system, and the cane is ground at some of the old, and old-fashioned, mills which still exist. The farmers who grow the cane complain that they are losing by it.

309. When the general depression of the sugar industry took effect in 1885 there was a collapse of that industry in Tobago, the people began to turn their attention to various minor industries, and they now export cocoa, cocoanuts, peas, corn, potatoes, plantains, poultry, eggs, cocoa-nut oil, cattle, goats, horses, pigs, and sheep. Their proximity to Trinidad enables them to find a market for many of the articles which we have just enumerated.

310. These articles, however, by no means compensate for the decay of the sugar industry, and many of the able-bodied inhabitants migrate permanently, or temporarily, to Trinidad in search of work. The rates of wages are not so low as in such an island as St. Vincent, but there is very little employment to be had. The nominal rate of wages appears to be maintained owing to the island lying close to Trinidad, where there is a demand for labour.

311. Complaints are made that even when work is obtained wages are not regularly paid, and that the labourers often have to accept payments in goods and do not receive cash.

312. The revenue of the island was 14,003*l.* in 1880, 14,175*l.* in 1883, and 11,826*l.* in 1885. After 1885 there was a great fall. The revenue of 1886 was only 8,814*l.* and notwithstanding strict economy and severe retrenchment successive deficits were incurred, necessitating a loan of 5,000*l.* from Trinidad funds, and other temporary borrowing. Part of this deficit has been cleared off by careful administration, and the revenue had risen in 1896 to 9,321*l.*, the expenditure being 9,269*l.*, but the net deficit on General Revenue Account at the close of the year was still 4,047*l.* * * * * *

315. The value of the total exports was 48,245*l.* in 1882, 38,437*l.* in 1885, only 18,892*l.* in 1886, and 39,526*l.* in 1889, which, owing to a large crop and high prices, was an exceptionally prosperous year for all the West Indian sugar-growing Colonies. After 1889 the exports again fell, but their actual amount cannot be given with complete accuracy, owing to the union with Trinidad. It appears, however, that in 1896 the exports to foreign countries were of the value of 9,336*l.*, whilst articles of the value of 10,360*l.* are stated by the Commissioner to have been sent to Trinidad. From these figures it might be inferred that the total exports from the island are now worth about 20,000*l.* a year.

316. The record of Tobago for the past 20 years is a gloomy one, but happiness is not synonymous with wealth, and the condition of the people is decidedly better than the figures we have given would appear to indicate. This result appears to be mainly due to the healthiness of the climate, and the fact that Trinidad provides a market close at hand for both produce and labour. Any severe and prolonged depression in Trinidad would, no doubt, re-act on Tobago.

317. As a remedy for the present state of things it was urged that one or two central factories should be erected. We cannot recommend this course. If large sugar factories cannot be worked at a fair profit in Trinidad, they are not likely to succeed in Tobago, and the condition of the island is not such as to justify the adoption of a remedy so expensive, and so unlikely to be a permanent success.

318. The island was united politically with Trinidad in 1889, but a separate account of revenue and expenditure is maintained, and an adjustment on account of import duties made. It is alleged that Tobago loses by the adjustment.

319. We recommend the complete amalgamation of Tobago and Trinidad, and the abolition of the separate account of revenue and expenditure. Tobago would then become a ward, or district, of Trinidad, and the two islands would have a common exchequer. To this measure objections would, no doubt, be raised locally, though we believe the majority of the inhabitants of Tobago are in favour of it. The owners of large tracts of land are afraid that financial amalgamation with Trinidad might lead to the tax on land being raised to the level of that prevailing in the latter island. We are unable to see why this result should necessarily follow, as Tobago, in its present condition, has a good claim for separate treatment in this matter. The traders seem to fear that amalgamation with Trinidad would reduce their business in connexion with the import trade, and possibly with the export trade.

This result might follow, but from the point of view of the general interest, no sound argument against the amalgamation can be based upon it.

320. Communication between the two islands should, as far as possible, be facilitated. If, as we have recommended a cheap, and regular service of steamers is established between Barbados and the southern islands, it may be arranged that Tobago shall participate in that benefit.

321. It also appears desirable that a Botanic Station should be established at Tobago, subordinate to the Botanic Department at Trinidad, and having for its object the attainment of the same ends. * * * * *

v.—GRENADA.

325. Grenada is the headquarters of the Government of the Windward group of Islands, which comprises also St. Lucia and St. Vincent. We arrived there from British Guiana on the evening of Sunday the 7th of February, and held two sittings, during which we examined 20 witnesses, on the 9th and 10th of the month. We visited several estates of a typical character and left the island early on the morning of the 11th of February, during which day we visited Carriacou, which is one of the small islands called the Grenadines, lying between Grenada and St. Vincent.

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327. The production of sugar for export has entirely ceased. So far back as the year 1882 the value of the sugar exported was only 20,000*l*. At the present time the sugar cane is grown to a small extent to meet the local demand for sugar and rum. The place of sugar has been taken by cocoa, the value of the exports of which in 1893 amounted to 281,004*l*. For a number of years the island was decidedly prosperous, owing to the high price of cocoa. But the price of cocoa fell in 1895 and 1896, and at the time of our visit to the island there was a considerable amount of depression. The value of the exports of cocoa in 1894 was 168,000*l*., and in 1895, 138,000*l*. Besides cocoa the Colony exports nutmegs, cotton, and other products of minor importance. * * *

333. Our attention was called to the rate of growth of the public expenditure, which was said to be excessive. The rate of growth has certainly been rapid, the total expenditure having risen from 42,895*l*. in 1882 to 60,382*l*. in 1896. Of the increase 5,188*l*. is due to additional expenditure on education, and 6,385*l*. to charges on account of the public debt, which now amounts to 101,123*l*., having been incurred mainly for the construction of roads, bridges, and waterworks.

334. There was a deficit on general revenue account of 1,183*l*. at the close of 1896, whilst among the assets of the Colonial Government there were included arrears of contributions due from parochial boards on account of loans amounting to upwards of 2,000*l*., much of which will probably prove irrecoverable.

335. There is at present a tax of 6*s*. per house levied in Grenada. The poorer classes in Grenada, like the poorer classes in most of the other West India islands, are improvident, and at a period of depression, such as that through which the Colony is now passing,

a demand for the immediate payment of 6s. in cash falls heavily on that portion of the population which possesses little in the way of property, and is not in the habit of making provision for the future.

336. From Mr. Leslie Probyn's memorandum of 27th April it will be seen that in the present year the tax of 6s. was payable on 263 houses, which were, it is said, of such small value that the owners preferred to abandon them rather than pay the tax. Although those houses may have been of less value than 6s. each, it is unlikely that the owners possessed a second house, and the abandonment of their places of abode must have involved some hardship. We recommend that the local government be instructed to take into consideration the question of reducing, or repealing, this tax on the poorer classes of houses, though we are not prepared to recommend in the present circumstances of the West Indies that no direct taxation on houses should be levied.

337. The other recommendations which we desire to make in the case of Grenada are, to a great extent, the same as those which we have to make in the case of most of the West Indian islands, and may be briefly summarised as follows :—

- (1.) The work of the Botanic Station should be extended, and it should be held responsible for agricultural instruction, for the introduction and experimental cultivation of tropical plants of economic importance, and for the supply of such plants, on payment, to the public.
- (2.) The Government should, as far as may be practicable, encourage the settlement of the Creole population on the land as small proprietors. The Crown lands are of small extent, and are situated in the highest portions of the island. They are covered with forest, which it is of the utmost importance to preserve, and they are, therefore, not available for settlement. The question whether the Government should not purchase estates with the view of re-selling them in small lots may fairly be raised in connexion with Carriacou, where it is of special urgency, as that island is in a very depressed condition, whilst the medical officer states that "most of the estates here are "owned by absentee proprietors, who demand rents "that are much too high under existing circumstances."
- (3.) Grenada will participate in the arrangements which we have proposed in Part I. for securing cheap and regular communication between the islands by means of small subsidised steamers.
- (4.) The cultivation of fruit in Grenada should be encouraged, and the best kinds should be supplied from the Botanic Station. We do not recommend that any special attempt should be made at the present time to start a fruit trade between Grenada and New York, but we have made a recommendation of this nature in the case of St. Vincent and Dominica, and if the experiment should prove successful there is no reason why it should not in time be extended to Grenada. It would greatly facilitate such extension if in the meantime Grenada were placed in a position to grow suitable kinds of fruit in sufficient quantities. * * * * *

340. In Carriacou, as in St. Vincent, we do not hesitate to recommend expropriation by process of law, after payment of reasonable compensation, in the case of the owner of any estate which has practically ceased to be cultivated, if such estate should be suitable for settlement in small lots, and should be wanted for that purpose, and if terms for its sale to Government could not otherwise be arranged. * * * * *

vi.—ST. LUCIA.

343. St. Lucia has an area of 152,000 acres, of which about 114,000 acres are cultivable. Of the cultivable land about one-half belongs to private persons, the other half being Crown lands. The island contains many lofty ridges and peaks, separated by deep valleys. The valleys are fertile, but not so healthy as the uplands. The rainfall is ample. Only a small portion of the total cultivable area is actually under cultivation, and one-third of the island is covered with forest. There is a population of about 46,000; the people speak a French *patois*, and the educational system is very defective. With the exception of the sugar-cane cultivation, agriculture is backward. There are about 2,500 East Indians in the island.

344. For the three years, 1882, 1883, and 1884, the average yearly value of the total exports was 194,000*l.*, and of the imports 150,000*l.* For the period from 1894 to 1896 the corresponding figures were 113,000*l.* and 151,000*l.* The value of the imports and exports of coal are not included in these figures; as a coaling station has been established in St. Lucia, their inclusion would render the figures less trustworthy as representing the progress of the Colony. The value of the sugar, rum, and molasses exported in 1882 was 207,000*l.*, and in 1883 was 190,360*l.* At that time almost the whole of the exports consisted of the products of the sugar-cane. After 1883 there was a rapid fall, and in 1886 the value of the quantities of these articles exported was only 64,000*l.* Subsequently to that year there was some increase up to 1893, in which year the value was 95,000*l.* After 1893 there was a further fall, and the value for 1896 was only 63,000*l.* The only article of export of importance, which has largely increased in quantity, is cocoa. Of this commodity 302,000 lbs. were exported in 1882 and 1,136,543 lbs. in 1896, but the price of cocoa has been low in 1895 and 1896, and though the value of the export in 1882 was 10,104*l.*, in 1896 it was only 15,403*l.*, notwithstanding a more than threefold increase in quantity. Wood is also exported for fuel, and there is a small export of fruit. In recent years the exports of logwood have been considerable, and in some years very large. In 1893 and 1894 the exports were large, being valued at 37,752*l.* and 37,359*l.* respectively.

345. The trade in logwood is, however, subject to great fluctuations, and there has been a fall in price. In 1896 the quantity exported was 1,904 tons, valued at 4,284*l.* In 1893 the logwood exported was valued at 6*l.* per ton.

346. The quantity of sugar exported in the present day is less than half what it was in 1882. The exports of rum are not of importance, and the exports of molasses have fallen off largely in quantity, and still more in total value.

347. When the sugar industry began to go down in 1884, the people turned, to some extent, to the cultivation of small plots of land on their own account. There is now a large number of persons employed in this way; some on plots which they have purchased from private owners, some on Crown land plots, some on land for which they pay rent or which they cultivate on the metayer system. A good many are believed to be squatters on Crown or other land, to which they have no title. * * * * *

349. The production of muscovado sugar for export has almost ceased. Only 494 tons of muscovado were exported in 1896, as against 3,055 tons of sugar made at central factories. About 30 estates which used to produce sugar have been abandoned in the last 10 years. Those which still produce sugar are either in the possession of the central factories, or send their canes there. About 70 peasant proprietors produce a small quantity of sugar.

350. The central factories do not appear to be flourishing. In good seasons they can apparently hold their own, but good seasons cannot be expected every year. The establishment of the Cul-de-Sac Factory was assisted by the Government, which borrowed 40,000*l.* for the purpose. Of this sum, 30,000*l.* was borrowed in the period 1874 to 1877, and 10,000*l.* in 1887. This money has been lost and the factory sold, but the persons who bought the factory, for a comparatively small sum, are believed to be working it at a profit. The population is in a very depressed condition, but actual starvation is not to be feared, as food sufficient to support existence is easily raised and land is obtainable. The island suffered greatly from a storm in 1894, and wages were reduced from 30 to 40 per cent. about two or three years ago. There are still a few indentured immigrants, the last batch of 155 having been brought to the Colony in 1893. The rates of wages now paid to the immigrants are not as high as those to which they are entitled by their agreements. It is not likely that more coolies will be applied for, and if applied for they should not be sanctioned.

351. The revenue of the Colony is hardly adequate to meet its expenditure, although some taxes are in force which are open to much objection, and additional expenditure is much needed for the repair and maintenance of roads as well as for other purposes. The general revenue rose from 38,953*l.* in 1882 to 56,590*l.* in 1894. In 1895, a year of general depression in the West Indies, it fell to 48,563*l.*, and a serious deficit was created. In 1896, by increase of taxation and owing to special receipts not of the nature of ordinary revenue, and not to be looked for in other years, amounting to 5,310*l.*, the receipts were raised to 55,331*l.* The expenditure in these three years was 54,400*l.*, 57,578*l.*, and 56,060*l.*, and the deficit on General Revenue Account at the close of 1896 was 5,088*l.* The Public Debt of the Island is 179,441*l.*, of which 95,881*l.* is due to expenditure on Castries Harbour, to enable it to be used as a coaling station.

352. Notwithstanding the gloomy picture which we have had to draw of the condition of St. Lucia, the island possesses certain resources which, if judiciously developed, may in time restore it to, at least, a moderate degree of prosperity, but the Colony requires, in a very special degree, careful and prudent as well as strong and resolute administration during the coming years. The establishment of a coaling station at Castries is a point in its favour. The number of vessels calling at the port has risen from 233 in 1887 to 435 in 1896. The quantity of coal shipped has risen in the same time from 17,758 tons to 44,816 tons. * * *

361. The most important measure to be taken for the welfare of St. Lucia is the settlement of the people on the land. There is already a large number of persons who cultivate small plots, but we have no doubt that the number can be increased. Roads should be provided for the benefit of the small settlers, and arrangements made for giving them instruction in agriculture. This instruction can best be given in connexion with the Botanic Station, the operations of which should be extended in the way we have indicated in the case of the other islands. More suitable land for the purpose of experimental cultivation in connexion with the Botanic Station is very much required. St. Lucia will, of course, share in the benefits of the scheme for facilitating communication between the different islands which we have recommended, if that scheme should be approved.

362. There is a law which provides for compulsory education, but the law is a dead letter, and could not be enforced. The general system of education for the children appears to be defective, the defects being, no doubt, largely due to want of money, and to the fact that the great mass of the population speak only a French *patois*, whilst the teaching is given in English. We can only recommend that special attention should be given to the educational system of the Colony, and reforms introduced as money can be made available. It would be a great gain to the people if they could be taught to speak English, and gradually weaned from the use of the present *patois*. It must take a very long time to carry any such reform into complete effect, but the matter should be steadily borne in mind, and the educational system so devised as to facilitate the change.

vii.—ST. VINCENT.

363. We reached St. Vincent on the evening of Thursday, the 11th of February, and took evidence publicly there on the 12th, 13th, and 15th. We examined 33 witnesses out of a large number that offered themselves, and we received in this island an unusual number of letters and petitions, alleging distress amongst the labouring class, with a considerable proportion of direct requests for pecuniary assistance.

364. The area of St. Vincent is 83,115 acres, and of the small islands united with it 10,872 acres. The total area of the Colony is, therefore, 93,987 acres, of which one-third is worthless. There

is a central range of mountains running north and south, with spurs extending on both sides to the sea. The soil is fertile, the climate healthy, and the rainfall heavy.

365. The sugar industry has been in a decaying condition for years, and is now on the verge of extinction. No improvements have been introduced in the manufacture of sugar, and the sugar canes have in recent years suffered very severely from disease, this disease being in all probability due, to some extent, to want of effective cultivation.

366. No industry can be said to have taken the place of the sugar cane as the cultivation of the latter fell off. The second industry in point of importance is that of the production of arrow-root, but the price of arrowroot has recently fallen to such an extent as to add materially to the depression from which the island is now suffering.

367. There are very few small proprietors cultivating their own land. Of the total area 50,584 acres are included in 129 estates of not less than 100 acres each, while the extent of the Crown lands is estimated to exceed 25,000 acres. The Crown lands are situated on the high ground in the interior of the island, and a belt extending along the coast, and completely surrounding the island, is in the hands of private owners. Of the cultivable area not more than 8,000 or 10,000 acres are believed to be beneficially occupied by cultivation.

368. Wages are very low; they have been reduced in recent years; and there is a lamentable want of continuous employment. For some years the able-bodied males have been emigrating, leaving, in many cases, the women and children to shift for themselves. The population is decreasing, and the labouring classes are discontented.

369. In 1882 the value of the total exports of native produce was 149,910*l.*, and of the imports 152,332*l.*; for 1896 the corresponding figures were 57,436*l.* and 60,563*l.* The values of the exports of sugar, rum, and molasses in 1882 were 94,847*l.*, 11,112*l.*, and 7,552*l.* respectively, while the corresponding figures for 1896 were only 19,544*l.*, 1,806*l.*, and 2,653*l.*

370. The Public Revenue in 1882 was 31,565*l.*, and in 1884 34,509*l.* Since that year there has been a falling off, the revenue for the last three years having been 28,574*l.*, 25,460*l.*, and 26,487*l.* Notwithstanding retrenchment in establishments, a deficit of 4,816*l.* had accrued at the close of 1896, to which should be added 1,707*l.*, which appears in the Colony's financial statements as due from the "Crown Lands Fund," but which is irrecoverable. The island has a public debt of 19,380*l.*, and further borrowing of 3,500*l.* for the construction of roads has been sanctioned.

371. The prospect which the Colony has now to face is the practical extinction of the sugar-cane cultivation within a very brief period, except in so far as it may be found profitable to continue it in order to meet the local demand for sugar and rum.

372. We do not think that under the conditions that are likely to prevail in the future the production of sugar for export on a large scale could be permanently carried on in St. Vincent unless modern machinery were set up, and the most approved processes

of manufacture adopted. Such a change would involve the starting of large factories, for which one or two places in the Colony are not unsuited. But there is no prospect of any such improvements being carried out by private persons, and we hesitate to recommend that the State should find the money for what must in the case of this Colony be regarded as a very doubtful experiment.

373. In view of the approaching extinction of the sugar industry in St. Vincent, and of the fact that there is no prospect of private enterprise establishing other industries on a sufficiently large scale to afford employment to the labouring classes, the problem of providing for these classes becomes one of extreme urgency, and is beset with difficulties.

374. We have already made a general recommendation that the settlement of the Creole population of the West Indies as cultivating proprietors should be recognized as the settled policy of the Government of the different Colonies, and we see no reason to depart from that policy in the case of St. Vincent. On the contrary, it seems to us that, whether the sugar industry is maintained or disappears, it is absolutely essential in the interests of the native population that their settlement on the land should be facilitated; in no other way does it seem to us to be possible to maintain even the most moderate degree of prosperity in St. Vincent. * * * * *

377. There are round the sea-coast thousands of acres of fertile land in the hands of private owners uncultivated, and likely to remain so. The holders of these lands appear to be unwilling to sell them in small lots or at a reasonable price, and are unable to cultivate them. Under the circumstances, we have no hesitation in recommending that suitable portions of these lands be acquired by the State and made available for settlement in small plots. If suitable lands cannot be obtained by private agreement with the owners, powers should be taken by the Government to expropriate them on payment of reasonable compensation. The condition of St. Vincent is so critical as to justify the adoption of prompt and drastic measures of reform. A monopoly of the most accessible and fertile lands by a few persons who are unable any longer to make a beneficial use of them cannot, in the general interests of the island, be tolerated, and is a source of public danger. * * * * *

379. Another measure which we recommend is an attempt to establish a fruit trade with New York, such, though on a smaller scale, as that which has proved of such benefit to Jamaica. In this enterprise Dominica may with advantage be associated with St. Vincent. We have already recommended that a guarantee for five years be given for a fruit steamer to run from St. Vincent and Dominica to New York, to be extended, if necessary, for another period of five years, on condition that each island undertakes to put at least 2,000 acres under banana cultivation. It is, however, probable that private persons will be found willing to make an agreement to this effect when they understand that proper means of communication may be depended upon for at least ten years.

380. As it appears likely that, at least in St. Vincent, a considerable charge for the relief of distress would have to be borne

by public funds if occupation cannot be found for the labourers, it would not be unreasonable, if private enterprise is not forthcoming to guarantee the requisite cultivation, for the Government to make arrangements to this end; and, if the recommendations with regard to the purchase of land in St. Vincent and the settlement of cultivators thereon are carried out, it may be made a condition of occupancy that a certain area of each holding shall be planted and cultivated in bananas. At any rate, it is estimated that a total cultivation of 4,000 acres in the two islands must be secured in order to produce sufficient bananas to make it worth while to run a steamer. If a considerable number of cultivators can be settled on the land, we have no doubt that they also will grow bananas and materially extend the industry. * * * *

385. In conclusion, we desire again to draw special attention to the very critical position of affairs in St. Vincent, where a population, which is not possessed of property in any form, and has no land on which it can labour, is threatened with the almost complete loss of the scanty amount of intermittent employment on very low wages which it at present manages with difficulty to secure.

386. No time should be lost in introducing any measures which it may be deemed advisable to adopt, with a view to applying a remedy to the condition of affairs which we have described. It is possible that the collapse of the sugar industry may come so suddenly as to make it necessary to find temporary employment at the public expense for some portion of the population. In such case the cost would have to be borne by the Imperial Exchequer, as it does not seem possible for the Colony to find the money.

viii.—DOMINICA.

387. We arrived at Dominica, direct from St. Lucia, on Thursday, the 11th of March, and on the 12th and 13th of March held sittings at Roseau, the chief town of the island, when we examined 14 witnesses. One of the Commissioners and Dr. Morris visited the Layou Flats, a promising district, which will be presently referred to.

388. Dominica is one of the Presidencies of the Federation of the Leeward Islands, with which we shall deal in the order in which we reached them. The seat of government is at Antigua.

389. The population, according to the census of 1891, was 26,841. This was 1,370 less than in 1881. The total area is 186,240 acres, of which only 60,000 acres are said to be in private hands. The whole of the remainder is therefore Crown land, and it is estimated that 80,000 acres of Crown lands are suitable for cultivation.

390. In 1882 the total value of the exports was 61,297/., and in 1896 the total exports were valued at 48,973/.. The value of the sugar, rum, and molasses exported in 1882 was 44,494/., and in 1896 only 7,554/.. That is to say, in the last 15 years the exports of sugar, rum, and molasses have fallen from 71 per cent. to 15 per cent. of the total value of the exports.

391. This fact alone would be sufficient to place Dominica in a different category to others of the Leeward Islands, such as St. Kitts, Nevis, and Antigua, in which the sugar industry has struggled against depression and retained its position as practically the only industry of the Colony.

392. In Dominica the cultivation of sugar has already given way, doubtless because the processes both of cultivation and manufacture were more primitive and wasteful than in other places. The industry was never on so strong a footing in Dominica, and has therefore succumbed sooner. * * * *

395. Since, however, Dominica has never been so great a sugar-producing Colony as most of the others, and sugar exports now only form 15 per cent. of the value of the whole, it is unnecessary to discuss the question of taking special measures as far as Dominica is concerned to re-establish the sugar industry there.

396. It is with the development of the other industries that the Colony will be mainly concerned in future. In this direction there is not only very good ground for hope, but considerable progress has already been made. The value of the exports of cocoa have risen from 6,375*l.* in 1882, to 13,453*l.* in 1896; of limes and lime juice from 5,102*l.* to 14,851*l.*; of essential oils from 295*l.* to 5,012*l.*; of fruit and vegetables from 607*l.* to 1,348*l.*; and of coffee from 321*l.* to 967*l.* in the same period.

397. But this is not enough. If Dominica is to be self-supporting, if an efficient Government is to be provided for out of its revenue, and the people are to be prosperous, or even comfortable, these industries must extend still further; and there is, happily, no reason why this should not be the case.

398. The great extent of the cultivable area of Crown lands has already been noticed. These lands are undeveloped; they are mostly covered with timber, much of which is said to be valuable. Care, no doubt, ought to be taken not to create increased risks of landslips or floods by allowing too much of the highest lands to be deforested, for the rainfall in Dominica is heavy; but even allowing for the utmost caution in this respect, there is a great extent of land, especially in Layou and Sara flats, which may be cleared and cultivated. The soil of much of this is believed to be very rich and fertile, and the appearance of such patches as have been cultivated confirms the probability of its being so.

399. Some of this land ought to be disposed of under proper regulations to peasant cultivators, and some of it may prove attractive to investors of capital or persons who are in a position to occupy and cultivate estates of their own. The Government of the Colony will have to be guided by circumstances in the disposal of it; it is not possible, under present conditions, to say what opportunities will arise which may lead to its being occupied and cultivated. At the time of our visit all sale of Crown lands had been temporarily suspended owing to negotiations which were then pending for a large concession to a company. We believe these negotiations have fallen through, but in any case the sale of Crown lands to cultivators in suitable localities ought to be resumed. * * * *

404. There is enough labour in Dominica for its present industries, but it is to be hoped that these industries will increase, and, if so, their needs will soon outgrow the capacity of the present labour supply. By the time, however, that this takes place there will, we fear, be only too many persons in other islands in want of employment, and it should be easy to import many labourers from them. * * * * *

409. The present condition of Dominica is certainly one of depression, and it will need assistance from the Imperial Government. This may be given as part of a general scheme for subsidised steam communication between the islands, and of a special scheme for opening direct communication between St. Vincent, Dominica, and New York.

410. Dominica will also share in any assistance which may be given to the system of botanic institutions in the West Indies. In addition to this the island should have some assistance from Imperial funds for making roads, which are essential to its progress. Such help need not be very costly, and need not be grudged, since Dominica may, if such assistance is given, be expected to attain a state of comfort, or even prosperity, and its capabilities and prospects are decidedly better than those of any other of the Leeward Islands.

ix.—MONTSERRAT.

411. We reached Montserrat on Monday evening the 16th of March, and on the 17th examined 11 representative witnesses and received written statements, and gained other information as to the condition of the island, which we quitted on the following morning.

412. The population of the island at the last census was 11,762. It is now estimated at 12,500. The area is about 25,000 acres, of which it is estimated that about 15,000 acres are cultivable. These are all in private hands, and there are no Crown lands. About 10,000 acres are said to be actually under cultivation. The area under cultivation in sugar is approximately estimated at 6,000 acres, or about three-fifths of the total cultivated area. There are many small holdings, besides large estates.

413. The value of the exports of sugar and molasses in 1882 was 31,142*l*. In 1896 the value had fallen to 14,967*l*. Hardly any rum is exported. The value of the total exports for 1882 was 38,120*l*., and in 1896 was 24,213*l*. It will be seen, therefore, that while in 1882 the exports of sugar and molasses amounted to 81.69 per cent. of the value of all the exports of the island, this proportion had fallen in 1896 to 61.81 per cent.

414. All the sugar estates produce muscovado sugar only; the industry has ceased to be profitable, and the prospects of it are no better than in neighbouring islands. The island is intersected by deep ravines, which would make the establishment of central factories difficult. Even, therefore, if the prospects and credit of the industry generally were to revive, the industry in Montserrat would in the long run be severely handicapped by the competition, in other parts of the world, of large central

factories, which either could not be established or could not be economically worked in Montserrat. It is accordingly necessary to consider what industries can take the place of sugar in supporting the population and providing a revenue for the island.

415. The statistics of exports show that during the last 15 years progress has been made with industries other than sugar. Such advance in this respect as there has been is greatly due to the work done by the Montserrat Company, the manager of which informed us that the company employs 1,200 labourers for the three months of crop time, and from 700 to 800 for the rest of the year. The company is stated to have 1,247 acres under cultivation in limes, and as a result mainly of this a considerable export of lime juice has arisen, the value of which has amounted to 10,300*l.* in one year, and may be said to average some 6,000*l.* in annual value. The lime industry in Montserrat, however, has of late suffered severely from blight.

416. Other exports of comparative importance are arrowroot, the value of which has doubled since 1892 notwithstanding a fall in price, and amounted to 669*l.* in 1896; and coffee, which reached a value of 789*l.* in 1896, having only begun to be an export of importance in 1894. Papaine, essential oils, and bay oil also appear upon the list of exports.

417. Reference to Dr. Morris's report will show that there are other forms of cultivation, such especially as vanilla, ginger, and fruit, which might be started or profitably developed, and the preserving establishment recently set up by the Montserrat Company may give some encouragement in this direction. * * *

419. Montserrat can only be developed and supported by variety of produce, and for this two things are essential—a good Botanic Station, capable of supplying plants and giving instruction, and access to markets. Both these needs have been dealt with in connexion with other islands in the general report, but it should be noticed that the work of the Botanic Station, which might have been made very useful in Montserrat, has been discontinued owing to lack of funds—an illustration of how the island is being pinched by the failure of the sugar industry, and of how, just as its need is greatest, it becomes impossible for it to provide unaided the means which are essential for overcoming its difficulties.

420. It will be seen, both from Dr. Morris's report and from the statistics already referred to, that the prospects of other industries than sugar are in a comparatively more advanced and more hopeful position in Montserrat than in St. Kitts and Antigua. Mr. Baynes, the Commissioner, drew our attention to the need for capital to develop new industries, a point which has already been dealt with. * * * * *

423. The revenue is falling off, though the Customs and other duties have been increased, and the limits of taxation have apparently been reached. Since 1890 an increase in the land tax has taken the place of export duties, which were abolished. * *

425. The increase in the ordinary expenditure is mainly due to increase of charges on account of debt and to increased cost of education.

426. From 1891 to 1894, 14,500*l.* was borrowed for public works, and in 1896, 3,500*l.* was borrowed on the security of Treasury

debentures, "partly to meet deficiencies of revenue, and partly to cover expenditure on loan works in excess of the amount raised"—or authorised. These works consisted chiefly "of new roads and improvements of old ones, improvement of the streets of the town, extension of the jetty, a new hospital," &c.

427. The new roads, as well as those previously existing and absolutely necessary for the traffic of the island, were severely damaged by the flood of November 1896, which in other ways also has caused much distress in the island. The Colonial Engineer of Dominica, who reported upon the damage done, and a copy of whose report was supplied to us, has recommended that no attempt be made to repair or maintain the greater part of the new roads: but it is estimated that the cost of indispensable repairs to the other roads and to those portions of the new roads which it is advisable to keep open will be about 2,650/., whilst an expenditure of 500/., will be required to repair the Plymouth waterworks; and the present jetty, which, though recently constructed, is already in a precarious state, must, if shipping facilities are to be maintained, be replaced at a cost of not less than 1,500/.

428. It will not be possible, with such a fall in the revenue as must be anticipated, for the Presidency of Montserrat to meet this expenditure, and to repay the short-term debentures for 3,500/., that represent its floating debt, except by sacrificing a considerable proportion of the already very limited expenditure devoted to education and medical relief.

x.—ANTIGUA.

429. We reached Antigua, the seat of the Government of the Leeward Islands, on the morning of Thursday, the 18th of March, and remained in the island till Monday, the 22nd of the same month, taking evidence from 25 witnesses, receiving written statements, and visiting several districts of the island. The poverty of many of the inhabitants was forcibly brought to our notice during these excursions, and by our residence in St. John's, as well as by the written and oral appeals made to us for assistance.

430. The population of Antigua is 36,119. The area is about 67,000 acres, of which 15,603 are under cultivation in sugar. The number of properties on which sugar is grown is given as 120, of which 41 are those of peasant proprietors or renters of less than 50 acres.

431. The value of the total exports of the produce of the island in 1882 was 262,145/., in 1896 this had fallen to about 127,000/.. The value of the exports of sugar and molasses for 1882 was 260,197/., and for 1896 it was £118,634, being 96 per cent. and 91 per cent. of the total exports for these years respectively. Hardly any rum was exported from Antigua during this period, and none has been exported since 1885. From these figures it will be seen how entirely Antigua is dependent upon its exports of sugar and molasses, and how great the fall in the value of these has been.

432. There are no large central factories, and, except at one estate, which has a vacuum pan and centrifugals, sugar is made

by the muscovado process, which in Antigua, as in Barbados, remained profitable, owing to the special fitness of the soil for producing a cane juice yielding a rich and valuable quality of molasses peculiar to these islands and St. Kitts, and having, until recently, a special market value. There has, also, during recent years, been improvement in the cultivation of the cane, so that a larger amount of sugar has been produced, though the area under cultivation has diminished. In 1882 the amount of sugar exported was 12,769 tons; in 1896 it was 13,714 tons. The great bulk of this export goes to the United States market.

436. In Antigua, as in all places which depend upon the export of muscovado sugar, the great fall in the demand for molasses has been an additional blow to the sugar industry. In 1882 the quantity of the molasses exported was 8,369 puncheons, valued at 41,845/, in 1896 it fell to 6,648 puncheons, of the value of only 7,479/., and it was stated in the memorandum quoted above that there has lately been an inability to sell the whole of the crop.

437. All that has been said under the head of Barbados respecting the prospects of the muscovado industry applies with equal force to Antigua. * * *

439. The prospects of the sugar industry might, no doubt, be improved by the erection of central factories. There is no chance whatever of this being done by private enterprise, and, if done at all, it must be done with the assistance and at the risk of the Government. We cannot advocate this course in the case of Antigua with as much confidence as in that of Barbados. Antigua is more liable to drought, and some difficulty might be experienced in securing a sufficient water supply for large factories; moreover, the plantations have not yet recovered from the attacks of disease to the same extent as they have in Barbados. There are, however, suitable places in Antigua for the establishment of such factories, and if the success of the experiment in Barbados is such as to justify its adoption elsewhere, Antigua may be regarded as the next best field for it.

440. In the event of a failure of the sugar industry the condition of Antigua will be one of very great distress and difficulty. No other industries can supply the place of sugar. During the bad season* of 1895 there was a considerable export of logwood, but the price of this product has fallen of late, and the supply in Antigua is said to be, for the present, exhausted.

441. Some attempts have been made, not on a very large scale, to grow pine-apples, and with success. They are sent to the London market, but the difficulty of transport and the cost of freight have prevented any considerable expansion of this industry. No doubt fruit of other kinds, of good quality, might be grown. Indeed, it may fairly be said that no other industry, except sugar, has had a trial, and on this point the evidence of Mr. Tillson, the Curator of the Botanic Station, may be referred to. Want of knowledge and want of means of communication with the great markets have stood in the way of all minor industries.

442. In Antigua, as in several other islands, the Government must, to meet the altered circumstances, take steps—

1. To promote the settlement of the labouring population on the land as peasant cultivators. Some Crown lands are

available for this purpose, and the low price of sugar has made it necessary to abandon some sugar estates, and may bring others into the market.

2. To provide more facilities of communication by steamer with other islands.
3. To encourage and extend the work of the Botanic Station.

* * * * *

444. Skerrett's Reformatory School, and the farm attached to it—of the expense of which some witnesses complained—are, no doubt, useful establishments if the Presidency is able to afford their cost, which in 1896 was 938*l.* net, for the combined institutions, and they appear to be well managed.

445. The public revenue, however, is not equal to the present rate of expenditure. There have been of late years, successive deficits, which have given rise to a floating debt on General Revenue Account, now amounting to upwards of 20,000*l.*, in addition to the funded debt of 138,000*l.* These deficits have been met by temporary borrowing, though the Customs duties have been very much increased. There is already a land tax of 5*s.* an acre on land planted in sugar-cane—which the industry is not in a condition to bear—1*s.* on other cultivated land, and 1*d.* on other lands, and though additional revenue has become necessary, it is not easy to see how fresh taxation can be imposed.

446. If the sugar industry fails, the future of Antigua will be more gloomy than that of either St. Vincent or St. Lucia. The capabilities are less, the liability to drought and hurricanes is greater. The scale of public expenditure will have to be progressively reduced, the standard of living will become very low, and the population will probably diminish. In the meantime the island must for some years be quite unable to provide for its own administrative needs and be a burden upon Imperial resources.

xi.—ST. KITTS—NEVIS.

447. St. Kitts and Nevis lie close together and form one Presidency under a single Administrator. We arrived at Basseterre, the chief town of St. Kitts, on the evening of Monday, the 22nd of March. We took evidence, during the 23rd and 24th, from 22 witnesses, and on the 25th we visited the island of Nevis, and after returning to Basseterre, left the same evening for Jamaica.

448. The estimated present population of St. Kitts is 31,900, and of Nevis, 13,700. The total area in acres of St. Kitts is 41,851, and of Nevis, 32,000; of these, 18,385 acres in St. Kitts, and 6,868 acres in Nevis, are stated to be beneficially occupied by cultivation; and it is said that all land that could at present be cultivated with profit is utilized. The total area of cultivable land is, however, given as about 29,000 acres for St. Kitts, and 24,000 for Nevis.

449. There is daily communication by steam ferry between Basseterre, the capital of St. Kitts, and Charlestown, in Nevis, a distance of about 14 miles.

450. As in Antigua, the population is dependent upon the sugar industry, the products of which are practically the only export of the island. In 1832 the value of the sugar exported was 283,108*l.*, of rum 5,930*l.*, and of molasses 36,373*l.*, making a total of 325,461*l.* In 1896 the corresponding figures were sugar 96,342*l.*, rum 1,856*l.*, molasses 7,047*l.*, making a total of 105,245*l.* The value of the imports has fallen from 237,289*l.* in 1882 to 157,087*l.* in 1896.

451. The description of sugar manufactured is almost entirely muscovado. The amount in 1882 was 18,601 tons, and in 1896 14,822 tons, the difference in quantity being due to difference in seasons, rather than to any diminution of the area under cultivation. From 1884 to 1896 an average of about 400 tons of vacuum pan sugar was manufactured on one estate chiefly for local consumption.

452. At present the only markets for the sugar produced are the United States, and, to a small extent, Canada. * * * * *

457. We inquired as to the reason of this difference between St. Kitts and Nevis as to the ownership of land, and find that it is attributed to sugar estates in Nevis having been broken up and sold in small lots in previous years. Mr. Roden, the District Magistrate of Nevis, stated that the peasant proprietor's land was formerly purchased from the estates.

458. In St. Kitts, estates have not yet been broken up in this way, probably because the soil has been richer and cultivation more profitable than on the estates of Nevis, referred to. Now, however, that the sugar industry is failing, the condition of the people in St. Kitts is worse than in Nevis, and the prospect of distress, leading perhaps to disturbance, when the abandonment of estates (as already decided) takes place, is very serious. * *

460. We desire to draw attention to the evidence given by Mr. Kortright, the Superintendent of Public Works, with reference to the deforesting of the mountain lands. In his opinion, it is in consequence of this that the occurrence of destructive floods is almost yearly becoming more marked, and is already impoverishing the upper lands. It would be very desirable to take measures to prevent the deforesting of land above a certain altitude. Some of such land is no doubt included in the area returned as cultivable. * * * * *

466. If there is no improvement in the sugar trade the revenue in St. Kitts will fall very considerably. Neither the official staff nor the general public expenditure can be very suddenly reduced in view of the impending distress, and for some years deficits may be expected to continue and even to increase. During this period St. Kitts-Nevis, as well as Antigua, must be dependent upon the British Government.

467. We desire, however, to express the opinion that there is room for some economies in the Government of St. Kitts-Nevis, and that efforts should be made to approach to a more simple and inexpensive form of Government throughout the Colony of the Leeward Islands than that which it has been deemed necessary or desirable to maintain in the days of their greater prosperity.

xii.—JAMAICA.

468. We arrived at Kingston, the capital of Jamaica, on Sunday, the 28th of March, and remained there or in the immediate neighbourhood until the 10th of April. We held public sittings on five days, and examined 63 witnesses; and also took other means of making ourselves acquainted with the condition and prospects of the island. On the 10th April we proceeded by the recently completed railway to the town and port of Montego Bay, at the north-west extremity of the island, and embarked on the *Talbot*, in which we were taken on the 12th of April to Port Maria on the north coast. At Port Maria the Custos of the parish, Dr. Pringle, had made arrangements by which we were enabled to drive through a considerable tract of country which was formerly under cane, but has now been successfully brought under banana cultivation.

469. In the evening we rejoined the *Talbot* at Port Antonio, and remained there until the morning of the 14th, when we finally left Jamaica, after a stay of 17 days in the Island.

470. During our stay at Port Antonio we visited some important banana plantations, and obtained much information regarding the banana industry from various persons, especially from Captain Baker, one of the early and successful originators of the trade. Port Antonio, it may be noted, is now, owing to the banana trade, a thriving place. It is the principal port of departure for steamers carrying fruit to the United States.

471. Jamaica lies at a considerable distance from the other British West India islands, and forms one of the group of the Greater Antilles, which comprises Cuba, Haiti, and Porto Rico, all of which are foreign. The island is only 310 miles from the Continent of America, 90 miles south of Cuba, and 100 miles west of Haiti. It has little connexion or trade with any of the other British West Indian Colonies, but has very frequent communication and a good deal of trade with the United States, as well as a fair amount of trade with the United Kingdom and Canada, but the trade with the United Kingdom has diminished of late years, whilst that with the United States has largely increased.

472. The island has an area of 4,207 square miles, and is, therefore, one-fourth larger than all the other British sugar-producing islands taken together, and although British Guiana, on the mainland of America, is about 25 times as large as Jamaica, it had only, in 1891, a population of 278,328, as compared with 639,491 in Jamaica.

473. Of the total area, 330,000 acres are still in forest, 80,000 acres consist of swamps and rocky or other useless lands, and 693,694 acres are returned as occupied by cultivation. A large portion of the cultivable land is situated at a considerable height above the sea, and no less than 1,133,600 acres of the land that is classed as cultivable are situated at or above an elevation of more than 1,000 feet. Coffee is grown at various heights up to 5,000 feet, and the mountain coffee is much prized, being sold at from 5*l.* to 6*l.* a hundredweight. Owing to the variety in elevation and the great fertility of the soil, nearly all tropical and sub-tropical plants can be cultivated with success. The island is

however, subject to severe droughts, and occasionally to floods, and at the time we visited Jamaica an exceptionally severe drought was causing much distress and loss.

474. Whilst British Guiana, which may be considered at present to depend entirely on the cultivation of sugar, has 66,908 acres under cane, there are 30,036 acres under similar cultivation in Jamaica; but, whereas most of the other Colonies are almost entirely dependent on sugar-cane, Jamaica produces, besides coffee, logwood, bananas, oranges, pimento, ginger, cocoa, coconut, tobacco, and other articles of export, the value of which, as shown in the returns of 1895-96, amounted altogether to about 1,415,000*l.*, as against 360,059*l.*, the value of the exports of sugar, rum, and molasses.

475. Jamaica is, therefore, in a better position to meet a falling off in the sugar trade than any of the other West Indian Colonies, except Grenada, which has ceased to produce sugar except for local consumption, and is supporting itself entirely by other products.

476. Nevertheless, the fall in value of sugar products exported has told heavily on Jamaica, and any further fall will seriously affect the welfare of a considerable body of planters and of 39,000 persons who are stated to be directly concerned in sugar cultivation, whilst many others are more or less dependent on the sugar industry, such as the cattle breeders and persons connected with the shipping interest.

477. The estimated population in March 1896 was 694,865. According to the census of 1891 the population, which was then 639,491, comprised 14,692 whites, 121,955 coloured persons, 488,624 blacks, 10,176 East Indians, 481 Chinese, and 3,623 of miscellaneous races.

478. If the present estimate of the population is correct, there has been an increase of 55,374 in the five years ending in March 1896, following an increase of 58,687 in the ten years from 1881 to 1891. The population is, no doubt, rapidly increasing, but the increase is much greater among the black and coloured population than among the whites. The coloured (or brown) population has much increased of late years in numbers and in influence.

479. It is interesting to note, as a matter of comparison, that at the time of the emancipation, in 1834, the population was made up of 311,070 slaves, 15,000 whites, 40,000 coloured people, and 5,000 free blacks.

480. The revenue administered by the Government of Jamaica, which in 1881-82 was 556,635*l.*, had risen to 807,893*l.* in 1895-96, but of this latter amount 161,790*l.* consisted of what are styled appropriated revenues, derived from taxation for local purposes, 80,587*l.* of the amount being devoted to roads, and 42,600*l.* to poor relief. This appropriated revenue has risen to its present large amount from 90,440*l.* in 1881-82, and in 1882-83 was only 85,634*l.* The general revenue for 1895-96, if the appropriated or local taxation is deducted, was 646,103*l.*, and of this no less than 499,511*l.* was from customs and excise. * * * * *

493. The number of holdings of land in the Island is 92,979, of which 81,924 are under 10 acres each. In 1882 there were only 52,608 holdings, of which 43,707 were under 10 acres each.

Even allowing for the fact that some persons may hold two or more plots of land, it is clear that the island already contains a very large and increasing number of peasant proprietors.

494. The Crown Land Regulations offer facilities for the settlement of the labouring population on the land, and as sugar estates are abandoned some of them will probably fall into the hands of small cultivators.

495. Under the agreement made with the Jamaica Railway Company land was to be made over to the company on the scale of one square mile of land for each mile of railway extension. From the report of the Surveyor-General of Jamaica it appears that 70,356 acres have already been actually selected and conveyed to the West India Improvement Company, and 6,444 acres which will shortly fall into the hands of the Government will also be conveyed to them. No use appears to have been made of this land so far, and the Government has intimated to the company the risk which they incur by allowing squatters to settle upon their properties, as 12 years' undisturbed possession will give them a valid title. It is to be hoped that these lands of the company may soon be made available for purchase and settlement.

496. Some of the evidence which we received does not give a very satisfactory account of the general condition of many of the people, and there was a tendency on the part of some witnesses to dwell a good deal on the depressed state of the Jamaica peasantry, but there is little doubt that the bulk of them are in a position which compares not unfavourably with that of the peasantry of most countries in the world, and the facts stated in the following paragraph show that the condition of the labouring classes can hardly have deteriorated.

497. In the last 10 years the number of savings bank accounts of the amount of 5*l.* and under has nearly doubled. The census returns of 1891 show that in the ten years, 1881 to 1891, there had been an increase of 30 per cent. in the number of persons able to read and write. The acreage of provision grounds has increased more than 30 per cent. in ten years. There are 70,000 holdings of less than 5 acres. The area in coffee, usually in small lots, increased in ten years from 17,000 to 23,000 acres. More than 6,000 small sugar mills are owned by the peasantry. The number of enrolled scholars was 100,400 in 1896, as against 49,000 in 1881, while the actual average daily attendance at schools had increased from 26,600 to 59,600. These facts indicate considerable advance, though no doubt in certain districts the people are poor. Distress was, perhaps, more apparent at the time of our visit than is usually the case, for there was a severe drought, the logwood industry, which had been flourishing, had fallen off, and employment on railway works had ceased.

498. On the whole there appears to us no ground for despondency as to the future of Jamaica, either in view of the possible failure of the sugar industry or on general considerations, but it is most desirable that the settlement of the people on the land should be encouraged. * * * * *

501. The results, in any case, of a falling off in sugar production will not be so serious as in other West Indian Colonies, and

we ascertained by personal observation and inquiry that in two large parishes at least, where sugar cane cultivation has ceased and bananas have been substituted, a larger population is now maintained than existed in former days, nor was there any reason to suppose that there was any special poverty in those parishes.

502. It does not follow that all abandoned sugar estates could be made to produce bananas, but we received evidence that some such estates were capable of producing abundant crops of bananas, and that in some cases portions of coffee estates which had been abandoned owing to the supposed exhaustion of the soil could, under certain conditions, which are referred to by Dr. Morris, be again brought under the same cultivation.

503. The new United States tariff places a considerable tax on the import of oranges, which will probably affect the export of this fruit from Jamaica, the value of which in 1895-96, owing to the failure of the crop in Florida, was 169,794 $\frac{1}{2}$., though in previous years the value was generally less than one-fourth of this amount.

504. The report of Dr. Morris shows sufficiently how the trade of Jamaica has altered in the last fifteen years, and how far other products have made up for the falling off in sugar, and it is manifest that if the new industries increase, as may be expected, and if the sugar industry can be carried on at a profit the Island will be in a fairly prosperous condition, although it must be always subject, like other countries which depend solely on agriculture, to depression in prices, with the addition of the drawback of droughts and floods as is usual in tropical countries. * * * * *

506. The Botanical Department of the Island is fully described by Dr. Morris. It has done excellent service in the development of various industries, and has no doubt helped the sugar industry also by attention to the best methods of cultivation, and by endeavouring to improve the canes. It has also imparted knowledge of cultivation to the peasantry. These efforts should be continued, and there seems no reason to alter the constitution of the department or its relation to the local government, but a competent agricultural chemist is required, to be constantly employed in conjunction with the Botanical Department in analysing the soil and its products.

507. There is evidence that good results have arisen from the action of the Jamaica Institute and of the two agricultural associations that exist in the Colony.

508. Before we conclude our remarks on Jamaica some reference must be made to the system of coolie immigration in the Island. By the last return received there were 14,128 East Indian immigrants in Jamaica, of whom 3,762 were still serving under indenture. 27,096 have been introduced since immigration began in 1845, and 8,809 have returned to India. Under the present system the whole cost of recruiting of Indian immigrants and of their passages to and from India is paid by those who employ them, the Government bearing the cost of the supervising and medical establishment in the Island.

509. Formerly and until quite recently the immigrants were imported almost exclusively for the sugar planters, though a small

proportion were assigned to coffee estates. Of late, however, they have been allotted to work on banana plantations. This may lead to complaints by peasant cultivators of bananas that the coolie is imported to compete with them, but if such complaints arise the Jamaica Legislature, which is elected by the taxpayers, can deal with them, and we do not make any recommendation as to the discontinuance of immigration in Jamaica under the present system, although we look forward to a time when, owing to an improvement in the industrial habits of the negro, there will be no necessity to import labour. We recognise that there is evidence to show that on public works, and even on some estates, the Jamaica negro is an excellent labourer, but there is also evidence that on some estates, though not on all, it is difficult to carry on cultivation without a proportion of indentured coolies, whose services can always be depended on. We therefore think it will be wise to abstain from advocating any change at present in the existing system, under which, as the planter pays heavily for introducing coolie labour, he has a strong inducement not to apply for coolies, unless he thinks they are absolutely essential to the working of his estate.

PART III.

CONCLUDING OBSERVATIONS AND SUMMARY.

i.—OBLIGATIONS OF THE MOTHER COUNTRY.

510. In Parts I. and II. of our Report we have expressed the opinion that the sugar industry in the West Indies is in danger of practical extinction ; that no industry or series of industries can in the space of a few years supply its place ; and that some of the Colonies will for a time be unable to meet the necessary and unavoidable cost of administration, including payments on account of the public debt. We have also recommended the adoption of measures having for their object the substitution of other industries for the cultivation of the sugar-cane, and the general amelioration of the economic condition of the people, as well as the relief of the distress which may arise in many places.

511. The carrying out of our recommendations must involve the expenditure yearly of a considerable sum of money which the Colonies will, in their altered condition, be unable to provide. The more depressed the condition of any Colony may be the greater will be its need for additional funds and the less will be its ability to raise them from its own resources, and we consider that in one form or another pecuniary sacrifices by the mother country on behalf of the West Indian Colonies are inevitable.

512. Justification for this view can no doubt be found in the nature of the relations which exist between a mother country and such dependencies as Your Majesty's West Indian possessions. But in this instance we desire to draw attention to peculiar circumstances, which, in our opinion, impose a special and an unusually strong obligation upon the Home Government.

513. The black population of these Colonies was originally placed in them by force as slaves; the race was kept up and increased under artificial conditions maintained by the authority of the British Government. What the people were at the time of emancipation, and their very presence in the Colonies at all, were owing to British action, or to the action of other European nations for the results of whose policy the United Kingdom assumed responsibility on taking possession of the territories in question; we could not, by the single act of freeing them, divest ourselves of responsibility for their future, which must necessarily be the outcome of the past and of the present. For generations the great mass of the population must remain dependent upon British influence for good government, and generally for the maintenance of the progress that they have made hitherto. We cannot abandon them, and if economic conditions become such that private enterprise and the profits of trade and cultivation cease to attract white men to the Colonies, or to keep them there, this may render it more difficult for the British Government to discharge its obligations, but will not in any way diminish the force of them. We have placed the labouring population where it is, and created for it the conditions, moral and material, under which it exists, and we cannot divest ourselves of responsibility for its future.

514. There is also another consideration, which in our opinion ought not to be overlooked. The distress which is beginning to be felt by the population: the difficulty in which some of them are already, or may soon be, placed of finding a livelihood; the still more certain difficulty of providing for their government and education, will be due to the failure of the sugar industry, which is in turn partly due to the protective policy of other countries and to the bounties which some of them grant on the production or export of sugar. To some extent at any rate these bounties and this policy have made sugar cheaper outside the countries in question, a result by which the British consumer has gained very largely. Whilst, therefore, it is unfair to say that the cause of the depression in the West Indies is due to any act of the British Government, we cannot overlook the fact that the British people have been reaping great benefit from precisely that set of circumstances which has been a factor in bringing the West Indies to the verge of serious disaster.

515. In our opinion, this makes it impossible for Your Majesty's Government to take a narrow view of the question, and, if the British people not only have gained, but continue to gain probably more than two millions sterling yearly from the cheapening of sugar by bounties, this fact is a strong reason why they should be generous in discharging the obligations of the mother country to those dependencies which suffer so severely from the operation of the bounty system.

ii.—THE UNITED STATES MARKET.

516. Some witnesses complained that in their opinion the Colonies had been hampered in making advantageous commercial arrangements with the United States.

517. Notwithstanding the failure of negotiations with the United States in 1884-85, we are not convinced that the Colonies have hitherto lost valuable opportunities of this kind, or have been debarred from obtaining benefits which would have been lasting.

518. As a matter of fact, on the most recent occasion when it was possible to make special terms with the United States, the West Indian Colonies were able to take measures owing to which their sugar was admitted free of duty.

519. The benefits, however, of this arrangement were not so great as was expected, and the agreement did not last, but was put an end to by a change of policy in the United States. The same disappointment and the same fate might have befallen any special arrangement for reciprocity.

520. Hawaii is the only country which has been able to make a special treaty of reciprocity with the United States which has lasted ; but Hawaii, owing to various causes, especially to the large investments of American capital in its sugar industry and to the general development of American policy with regard to it, affords no analogy to the West Indies.

521. It does not, however, follow because there has been no substance in this grievance in the past that there may not arise hardship in the future. It is impossible to foresee what offers or demands may be made by the United States, or what opportunities may arise.

522. The question of special reciprocal tariff arrangements has been re-opened by the provision made in the Revenue Law of the United States by which the President is empowered to enter into commercial treaties with countries willing to give advantages to the trade of the United States, and in return for such advantages to grant a reduction by 20 per cent. of the duties imposed by the Act.

523. The United States is the nearest and therefore, in one sense, the natural market for West Indian produce. It may be that in time the United States, either by the development of their own beet industry or in other ways, will succeed in supplying their own market and so cease to take or to need West Indian sugar. But at present this is not so ; and perhaps may not be so for a long time. In the meantime, therefore, the British Government should take care that if the West Indies lose the market of the United States, it shall not be owing to provisions in Imperial treaties, which could be removed without involving a loss to the Empire which would be altogether out of proportion to the gain that would accrue to the West Indies.

524. It would be very unfortunate if, at a time when conditions in the British market were, from special causes, exceptionally unfavourable to West Indian sugar, these colonies were to be excluded from actual or possible markets elsewhere ; and a serious political difficulty would arise if at such a time the exclusion were to be the direct consequence of the Imperial connexion. For such a hardship incurred under such conditions the Colonies would no doubt put forward a strong claim for special treatment by the mother country, and one which it might be difficult to resist.

iii.—DANGER OF DEPENDING ON A SINGLE INDUSTRY.

525. The recommendations involving expenditure by the mother country, which we have considered it our duty to make, are based primarily on the present and prospective depression of the sugar industry in the West Indies, but they are of such a nature that they should, in our opinion, be carried out even if the sugar industry were restored, temporarily, to a condition of prosperity.

526. It is never satisfactory for any country to be entirely dependent upon one industry. Such a position is, from the very nature of the case, more or less precarious, and must in the case of the West Indies result in a preponderating influence in one direction tending to restrict development in other ways.

527. The representatives of the sugar industry in the West Indies have had special means of influencing the Governments of the different Colonies, and of putting pressure on the home Government to secure attention to their views and wishes. Their interests have been to a very great extent limited to the sugar industry, and they have seldom turned their attention to any other cultivation except when the sugar industry ceased to be profitable. The settlement of the labouring population on the land, and the encouragement of the products and forms of cultivation suitable for a class of peasant proprietors formed no part of their policy; such measures were generally believed to be opposed to their interests, which they regarded, no doubt, as identical with the best interests of the community, and in, at least, some of the Colonies met with opposition at their hands. If a different policy had found favour, the condition of the West Indies might have been much less serious than it is at present in view of the probable failure of the sugar industry.

528. The general statement regarding the danger of depending on a single industry applies with very special force to the dependence of the West Indian Colonies upon the sugar industry, for the cultivation of sugar collects together a larger number of people upon the land than can be employed or supported in the same area by any other form of cultivation. In addition to this it also unfits the people, or at any rate gives them no training, for the management or cultivation of the soil for any other purpose than that of growing sugar cane. The failure, therefore, of a sugar estate not only leaves destitute a larger number of labourers than can be supported upon the land in other ways, but leaves them also without either the knowledge, skill, or habits requisite for making a good use of the land. In those Colonies where the sugar industry cannot be carried on without imported coolie labour the position of dependence upon this one industry is still more dangerous. In these cases not only is there a yearly charge upon the public revenue to meet the cost of immigration, but a liability for back passages is incurred, which a failure of the industry would leave the Colony without funds to meet.

529. Whilst, therefore, the vital importance of the sugar industry to the present prosperity of nearly all the Colonies is beyond dispute, we wish to observe that so long as they remain dependent

upon sugar their position can never be sound or secure. It has become a commonplace of criticism to remark upon the perpetual recurrence of crises in the West Indian Colonies, and we submit that the repeated occurrence of such crises, as well as the fact that the present crisis is more ominous than any of the previous ones, illustrates the danger to which we have referred, and adds much force to our recommendations for the adoption of special measures to facilitate the introduction of other industries.

iv.—THE COST OF RELIEF.

530. We have no doubt that if there is so complete a failure of the sugar industry as now appears probable, some of Your Majesty's Colonies in the West Indies will be unable for a time to meet the cost of public administration as well as to raise the necessary funds for the relief of distress, and, in some cases at least, for meeting engagements with the East Indian immigrants. In the Colonies which depend entirely or almost entirely upon sugar there is no likelihood of alternative industries being established in sufficient time to provide employment for the people and to prevent the revenue from falling off. In such islands as Barbados, St. Kitts, and Antigua, it is extremely improbable that any new industries that can be established will ever completely take the place of sugar, or enable an equally numerous population to maintain themselves in the same degree of comfort. The revenue may be permanently lower than it is at present, and the administration must be carried on in a more economical manner, and, probably, with some loss of efficiency.

531. The islands which are in the best position are Grenada, Jamaica, and Trinidad, and we do not anticipate that either of the two latter will require special assistance from the Home Government. The amount of assistance which the other Colonies and islands may require we find ourselves unable to estimate. It must depend very largely on the extent to which and the rapidity with which the sugar industry may succumb. We have, however, no hesitation in recommending that the Home Government should undertake to meet for a period of ten years the cost of the Botanic Department and Botanic Stations which we have proposed should be established, and in this assistance which is given to its immediate neighbours, Grenada, though somewhat better off, should share.

532. The total cost may be placed at 9,700*l.* yearly for Tobago, Grenada, St. Vincent, Barbados, St. Lucia, Dominica, Montserrat, Antigua, and St. Kitts-Nevis. This department should be administered by an Imperial officer, who would also act as consulting officer to the Colonies of Jamaica, Trinidad, and British Guiana, when they wished to obtain the benefit of his advice. The nine islands which we have named already maintain Botanic Stations at their own cost, with the exception of Tobago. We recommend that they be relieved of the charge they now bear on this account, which amounts to about 3,200*l.* a year. This arrangement will not, in the long run, throw any additional burden on the Home Government, as we feel sure that the islands in question will

require assistance for general purposes, and if they are relieved of the cost of the botanic stations this assistance will be proportionately reduced. If the Governments of the various Colonies contributed to the cost of the Botanic Establishment a system of divided control would be established, a result which, in the interests of efficient administration, we consider it desirable to avoid. The yearly cost of this officer with his assistant and office, and including provision for the publication of papers on subjects of practical interest, may be taken at 2,700/.

533. A grant of 1,000/ yearly for experimental cultivation of sugar cane should also be given, and an equal sum to meet the cost of rewards to successful cultivators and to assist elementary schools in teaching agriculture.

534. We also think it desirable that where higher schools exist some arrangement should be made for the teaching of scientific agriculture. The yearly cost would probably be 2,600/.

535. We think that the cost of the subsidies to the steamers which will provide frequent and regular communication between certain islands as well as the cost of fruit steamers between St. Vincent, Dominica, and New York, should be borne by the Home Government. There is practically no other means of providing the necessary funds. These subsidies should not exceed 10,000/ yearly.

536. The total annual cost to the Home Government of our recommendations in connexion with the Botanic Department, scientific agricultural education, and subsidies to steamers, will therefore amount to 27,000/.

537. We think it out of the question that Your Majesty's West Indian possessions should, under any circumstances, be allowed to remain a perpetual burden on the taxpayers of the United Kingdom, and the steamer subsidies might be granted in the first place for five years, on the understanding that at the expiration of that term the necessity for their continuance on the same or a reduced scale for a further period of five years will be subject to reconsideration.

538. The assistance for the Botanic Department and agricultural education should be granted for ten years.

539. It should be clearly laid down that after the expiration of ten years Your Majesty's Government will have an absolutely free hand as regards reducing or abolishing altogether the amount of assistance of whatever kind to be granted yearly.

540. In the case of Barbados we have already recommended that money should be lent by the Home Government for the purpose of establishing central factories. We do not think that a larger sum than 120,000/ would be required for this purpose in the first instance, and we trust that the loan will not, in the long run, impose any burden on the Imperial Exchequer. If, however, the factories failed to work at a profit, the loss must ultimately fall on the mother country, as neither the estates nor the Colony could in such a contingency find the money. On the other hand if the scheme succeeded, it might be extended in Barbados, and possibly in other islands also.

541. We propose that the assistance which we have already recommended should be given unconditionally. But it is more

than probable that further assistance will be required by some of the Colonies, and we do not propose that such assistance, if given, should be unconditional. St. Vincent, Antigua, St. Kitts-Nevis, Dominica, Montserrat, Barbados, British Guiana, and, possibly, St. Lucia and Trinidad, may all require assistance for one or more of the following purposes:—To enable them to avoid bankruptcy, or to relieve distress, or to deal with the East Indian immigrants, or to make roads, or to settle the labouring population on the land, or to promote emigration. If a Colony should require assistance of this nature it should be made a condition of any grant by the Home Government that all practicable economies shall be enforced and the resources of the Colony employed to the fullest extent before assistance is applied for, and also, that if such assistance is granted, the Colonial Government shall consent to such modifications of its political constitution as Your Majesty's Government may consider to be necessary in order to ensure economy and efficient administration.

542. We shall not attempt to make a complete estimate of the amount of assistance which these Colonies may require as it depends altogether on the extent to which the sugar industry fails, the rapidity with which it fails, and the rate of progress in substituting other industries. It is, however, certain that a considerable amount of assistance will be required in any case, and of this amount we are able to make an estimate.

543. The Islands of St. Lucia, St. Vincent, Montserrat, Antigua, and St. Kitts-Nevis have floating debts which represent accumulated deficits, the money having been raised on short-term debentures. The most economical course will be to clear these debts off at once, by a grant from the Imperial Exchequer, and we think that similar assistance should be given to Tobago. These islands at present pay interest at the rate of 4 per cent. on their floating debt, and it will be cheaper to pay off the debt for them than to supply them with money to pay interest charged, and repay instalments of the principal. The amount of the grant required may be taken at 60,000*l*.

544. In St. Lucia, St. Vincent, Antigua, St. Kitts-Nevis, Dominica, and Montserrat the revenue does not equal the expenditure at present, and we think it likely that grants amounting in the aggregate to 20,000*l*. a year may be required for some time.

545. The Government of St. Vincent will require a grant to enable it to take possession of some of the existing sugar estates and to allot them to negro cultivators, and Dominica should receive a grant to enable it to open up communication with some portion of the most fertile and most accessible lands which are at present uncultivated; any further extension of roads in Dominica, which are much needed; should be carried out gradually, as the resources of the Island will permit. The special grants to St. Vincent and Dominica may amount to 30,000*l*. Both St. Vincent and Dominica may require to incur some expenditure to enable them to start banana cultivation, though we are not without hopes that this may be done by unassisted private enterprise when it is known that steamers will be ready to carry the fruit to New York.

546. Barbados and British Guiana have larger populations and are no doubt wealthier Colonies, but their prosperity so greatly depends upon sugar-cane cultivation at the present time that any serious reduction of that industry might throw a very heavy burden on the mother country. We are not in a position to estimate the amount or to say what the expenditure in British Guiana in connexion with the immigrants might amount to. In Antigua it is almost certain that expenditure must be incurred in the relief of distress, and in that island as well as in Barbados and St. Kitts the question of assisting emigration may become one of great urgency.

547. The question of emigration is extremely difficult to deal with at the present time. The failure of the sugar-cane will reduce the demand for labour in all the islands at the very time when emigration from some of them will assume special importance, nor is it easy to see to what countries outside the limits of the West Indies emigration could be successfully directed. The pressure of events will stimulate the tendency to emigrate, and the subsidised steamers will facilitate it by affording a cheap and regular means of communication between the different islands, but the actual operations for assisting emigration must be left to be dealt with by the Governments concerned according to circumstances, and as suitable openings for emigration disclose themselves. In Trinidad and British Guiana there are large quantities of land available for settlement, but under the circumstances that now exist the progress of emigration is not likely to be so rapid as to provide for the large section of the West Indian population that will be unable to find a living near their homes, while the process of emigration will involve much hardship and be attended with many difficulties.

v.—SUMMARY OF CONCLUSIONS.

548. Finally, we beg leave to submit the following summary of our conclusions :—

- a. The sugar industry in the West Indies is in danger of great reduction, which in some colonies may be equivalent or almost equivalent to extinction.
- b. The depression of the industry is due to the competition of other sugar producing countries and in a special degree to the competition of beet sugar produced under a system of bounties. It is also affected by high protective tariffs, and by the competition of cane sugar, the production of which is specially encouraged by the Governments concerned. The causes of the depression may be described as permanent, inasmuch as they are largely due to the policy of foreign countries, and there is no indication that that policy is likely to be abandoned in the immediate future.
- c. It is not due in any considerable degree to extravagance in management, to imperfection in the process of manufacture, or to inadequate supervision consequent on absentee ownership, and the removal of these causes, wherever they exist, would not enable it, generally, to be profitably carried on

under present conditions of competition. In many places in the West Indies, sugar is not manufactured according to the best and latest processes, but even the estates which have introduced the best machinery suffer from the depression, and we have little doubt that the latest machinery would be much more generally employed but for the general and apparently well founded conviction that even with the assistance of such machinery the business could not be profitably carried on. In places where large factories equipped with the best machinery cannot be established owing to local causes it is doubtful if the sugar industry could, under any circumstances, be restored to a condition of permanent prosperity, except, possibly, in localities which enjoy very special advantages in soil, climate, and labour supply.

- d. The depression in the industry is causing sugar estates to be abandoned, and will cause more estates to be abandoned, and such abandonment is causing and will cause distress among the labouring population, including a large number of East Indian immigrants, and will seriously affect, for a considerable time, the general prosperity of the sugar-producing Colonies, and will render it impossible for some, and perhaps the greater number of them, to provide, without external aid, for their own government and administration.
- e. If the production of sugar is discontinued or very largely reduced, there is no industry or industries that could completely replace it in such islands as Barbados, Antigua, and St. Kitts, and be profitably carried on and supply employment for the labouring population. In Jamaica, in Trinidad, in British Guiana, in St. Lucia, in St. Vincent, and to some extent in Montserrat and Nevis, the sugar industry may in time be replaced by other industries, but only after the lapse of a considerable period and at the cost of much displacement of labour and consequent suffering. In Dominica the sugar industry is not at the present day of great importance. We think it right to add that in all Colonies where sugar can be completely, or very largely, replaced by other industries, the Colonies in question will be in a much sounder position, both politically and economically, when they have ceased to depend wholly, or to a very great extent, upon the continued prosperity of a single industry.
- f. The total or partial extinction of the sugar industry would, in most places, very seriously affect the condition of the labouring classes for the worse, and would largely reduce the revenue of the Colonies. In some places the loss of revenue could be met to a limited extent by economies, but this could not be done universally nor in a material degree in most of the Colonies. Some of the Colonies could not provide the necessary cost of administration, including the relief of distressed and necessitous persons, or of the support and repatriation (when necessary) of the East Indian immigrants, without subventions from the mother country.

Jamaica, Trinidad, and Grenada may be expected to meet from their own resources the whole of the expenditure that is likely to fall on them.

- g.* The best immediate remedy for the state of things which we have shown to exist would be the abandonment of the bounty system by continental nations. This change would, in all probability, enable a large portion of the sugar-cane cultivation to be carried on successfully, and would certainly reduce the rate at which it will diminish.

Looking, however, to what appears to be the policy of the United States of America, to the great cheapening of the cost of production of beet sugar, and the fact that many countries appear to have singled out the sugar industry as one which ought to be artificially stimulated in various ways, it is not clear that, even if the bounties were abolished, another crisis of a similar character might not arise in the West Indies at a future day.

- h.* A remedy which was strongly supported by witnesses interested in the West Indian sugar estates was the imposition of countervailing duties on bounty-fed sugar when imported into the United Kingdom.

The majority of the Commission have been unable to support this course. The Chairman is of a different opinion, and has stated his views separately on this point.

- i.* The special remedies or measures of relief which we unanimously recommend are—

- (1.) The settlement of the labouring population on small plots of land as peasant proprietors.
- (2.) The establishment of minor agricultural industries, and the improvement of the system of cultivation, especially in the case of small proprietors.
- (3.) The improvement of the means of communication between the different islands.
- (4.) The encouragement of a trade in fruit with New York, and, possibly, at a future time, with London.
- (5.) The grant of a loan from the Imperial Exchequer for the establishment of central factories in Barbados.

The subject of emigration from the distressed tracts also requires the careful attention of the various Governments, though we do not find ourselves at the present time in a position to make recommendations in detail.

- j.* We estimate the cost of the special remedies recommended in (2) (3) and (4) of *i*, at 27,000*l.* a year for ten years, the expenditure to be borne by the mother country. We estimate the amount of the loan to Barbados for the erection of central factories at 120,000*l.* This measure no doubt involves the risk of loss.

Grants will be required in Dominica and St. Vincent for roads, and to enable the settlement of the labouring population on the land to be carried out, and their amount may be taken at 30,000*l.* A further grant of about 60,000*l.* is required to clear off the floating debt in some of the smaller islands.

In addition, the smaller islands should receive grants to enable them to meet their ordinary expenditure of an obligatory nature. The amount may be placed at 20,000*l.* a year for five years, and possibly a reduced amount for a further period of five years.

The expenditure which we are able to estimate may be summarised as follows :—

- (1.) A grant of 27,000*l.* a year for ten years.
- (2.) A grant of 20,000*l.* a year for five years.
- (3.) Immediate grants of 60,000*l.* and 30,000*l.*, or 90,000*l.* in all.
- (4.) A loan of 120,000*l.* to Barbados for the establishment of central factories.

k. As to the amount of expenditure which it may be necessary to incur in relieving distress (especially in British Guiana and Barbados), in promoting emigration, and in supporting and repatriating East Indian immigrants, we are unable at the present time to form any estimate, but it might be very great, if there occurred a sudden and general failure of the sugar industry in Barbados and British Guiana, where the population is comparatively large, and the people depend so greatly upon the cultivation of the sugar-cane. In such a contingency neither British Guiana nor Barbados would be able to meet the necessary cost of administration for, probably, a considerable number of years.

vi.—CONCLUDING OBSERVATIONS.

555. We cannot close our report without expressing our strong sympathy with the planters, who have struggled against very adverse circumstances to maintain the sugar industry, and with the very numerous persons who depend directly or indirectly upon that industry, and have severely suffered from its decay. Among the latter we would include not only the labourers, but many of different races and a higher social class, who, as clerks, overseers, artisans, tradesmen, or in professional vocations, have been impoverished by the depression in sugar.

556. Our own task has been of a discouraging nature. Our duty has been to inquire into the condition of a depressed and failing industry, and to consider if any means are possible for restoring and maintaining the prosperity of those Colonies that depend upon it, and, in any case, to suggest the establishment of other industries which might supplement the cultivation of sugar cane, and, in case of need, provide means of subsistence for the people. Our conclusions will, no doubt, disappoint many who have looked for some immediate and substantial relief, but, with the most sincere wish to do all in our power to help the West Indian community, we have not felt ourselves able to make other recommendations than those which we now humbly submit for Your Majesty's gracious consideration.

(Signed) H. W. NORMAN.
E. GREY.
D. BARBOUR.

25th August 1897.

DLXXXV.—MISCELLANEOUS NOTES.

MR. JOHN HENRY HOLLAND, who was appointed Assistant Curator of the Botanic Station at Old Calabar, in the Niger Coast Protectorate (*Kew Bulletin*, 1896, p. 147), has returned to this country after having completed his first term of service. He will spend a part of his leave at Kew in studies connected with the work of his department, and return to West Africa early next year.

MR. WILLIAM SCOTT, F.L.S., Director of Forests and Gardens in Mauritius, died somewhat suddenly in Scotland on the 3rd Oct. Mr. Scott, after a course of training at Kew, was appointed Assistant Director in 1881, and succeeded Mr. Horne as Director in 1893. He had lately arrived in this country on leave after an absence of 16 years in the tropics, and apparently in excellent health. Mr. Scott was a capable officer and thoroughly devoted to his duties. His death will be a great loss to the Colony in which he has so long served. He entered upon the charge of Mauritius Gardens under singularly depressing circumstances, as his first work was to restore the havoc wrought by the hurricane of 1893, which had nearly destroyed one of the most attractive gardens in the East. By dint of great zeal and energy, he had accomplished this work and left his department in excellent order. As he was a comparatively young man, it was hoped that he had a career of great usefulness before him. His untimely death will be received with great regret by all who knew him.

Malpighi Celebration.—The celebrated Italian anatomist and botanist, Marcello Malpighi, was a contemporary of Hooke and Grew, not less illustrious in our own country. He was elected an honorary member of the Royal Society in 1668, and in 1672 the Society published his great work "*Anatome Plantarum*." On September 8th of the present year a monument to his honour was unveiled at Crevalcore, near Bologna. The Royal Society nominated Dr. Scott, F.R.S., Honorary Keeper of the Jodrell Laboratory, to represent it on the occasion. He was, however, unfortunately prevented by illness at the last moment from travelling to Italy.

Botanical Magazine for October.—*Cirrhopetalum robustum* is a New Guinea species, having yellow-green sepals, yellow and rose petals, and blood-red labellum. The Kew plant was received from Colonel Trevor Clarke, in 1893. *Agave Bouchei*, from Mexico, has been in cultivation at Kew for about twenty years, but it did not produce flowers till 1896; the flower spike was two feet long. *Primula sinensis* was raised from seed, supposed to have been received from Ichang, and a plant was sent to Kew by Mr. Edmund Hyde, of Ealing, in December, 1896. *Calathea rufibarba*, believed to be a native of Brazil, was sent to Kew from the Imperial Botanic Gardens, St. Petersburg. The whole plant, except the golden-yellow flowers, is clothed with long brown hairs. Particular interest attaches to *Pterisanthes polita*, a

member of the Vine family, which has one branch of the bifid tendrils curiously flattened and bearing embedded male and stalked marginal female flowers. It is native of the Malayan Peninsula and Islands. The Kew plants were received from the Botanical Gardens at Singapore.

Hop Hornbeam.—*Ostrya carpinifolia*, Scop. The death and consequent removal of probably the finest specimen of this tree in Britain, although a grafted one, has unfortunately to be recorded. It stood near the Hardy Fernery on lawn L ($\frac{E}{7}$) of the Kew Key-Plan. For several years it had not been in good health, and on being taken down, its roots were found to have been killed by fungus mycelium. A portrait of the tree appeared in the *Gardeners' Chronicle* for September 30th, 1890, p. 275; another is given by Loudon in his *Arboretum et Fruticetum Britannicum* in 1838. The species, which is a native of South Europe, Asia Minor, &c., was introduced to this country prior to 1724, as it is mentioned in Furber's *Nursery Catalogue*, published in that year. The actual measurements of the Kew tree were as follows: height, 59 ft.; spread of branches, 68 ft.; girth of trunk 3 ft. from the ground, 9 ft. 4 in. Fruit was abundantly produced, but no perfect seeds were ever developed.

Tropical Fern House.—The reconstruction of No. II. which holds the collection of Tropical Ferns, was completed during the past summer. The history of the house is given in the *Kew Bulletin* for 1895 (pp. 200, 201). The east wing was reconstructed in 1889 on the mixed system of iron and wood construction described in the same volume (p. 300). The west wing and transept have now also been reconstructed on this principle. The ridge of the transept which formerly did not extend beyond the main body of the building, has been continued across it with a great improvement of both internal and external effect. The use of green glass has now been altogether abandoned.

Nepenthes House.—During the past year a house has been erected for the cultivation and exhibition to the public of the fine collection of Pitcher plants possessed by the Royal Gardens. They require peculiar treatment for their successful growth, and this cannot be given in a house devoted to a mixed collection of stove plants and always open to visitors. Hitherto the greater part of the collection could only be grown in houses not accessible to the public, and when exhibited was not shown to advantage.

The new *Nepenthes* House at Kew is a light span-roofed structure built alongside the stove (No. IX.) in the T. range. It is 70 ft. long, 12 ft. wide, and $9\frac{1}{2}$ ft. high; the path is central, and consists of an iron grating over several rows of hot-water pipes that are deeply placed so that they may be partially covered with water if necessary. Abundance of moist heat is thus provided, so that the plants have some of the conditions they enjoy in nature provided for them. The new house has no external doors; visitors enter and leave it by doors opening from the

stove, while employés can enter through a new and light potting shed at one end. At present there are about a hundred specimens of species and hybrids of *Nepenthes* in the new house, grown in teak baskets, and suspended from the roof. The house was opened to the public October 15th.

The following is a list of the species and hybrids cultivated at Kew :—

SPECIES.

- Nepenthes* albomarginata, *Lobb*, Singapore.
 ampullaria, *Jack*, Malaya.
 bicalcarata, *Hook. f.* Borneo.
 Burkei, *Mast.* Borneo.
 — var. excellens.
 cincta, *Mast.* Borneo.
 Curtisii, *Mast.* Borneo.
 — var. superba.
 distillatoria, *L.* Ceylon.
 gracilis, *Korth.* Borneo.
 hirsuta, *Hook. f.* Borneo.
 kennedyana, *F. Muell.* Australia.
 laevis, *Lindl.* Malaya.
 northiana, *Hook. f.* Borneo.
 obrieniana, *Lind. & Rod.* Borneo.
 Pervillei, *Blume*, Seychelles.
 Phyllamphora, *Willd.* Cochin China.
 rafflesiana, *Jack*, India.
 — var. elongata.
 — var. hookeriana.
 sanguinea, *Lindl.* Malaya.
 stenophylla, *Mast.* Borneo.
 Veitchii, *Hook. f.* Borneo.

HYBRIDS.

- Nepenthes* amesiana (rafflesiana x hookeriana).
 atrosanguinea (hirsuta x Sedeni).
 Chelsoni (Dominii x hookeriana).
 coccinea (hookeriana x Phyllamphora).
 cylindrica (Veitchii x hirsuta).
 dicksoniana (rafflesiana x Veitchii).
 Dominii (rafflesiana x unnamed sp.).
 edinensis (rafflesiana x Chelsoni).
 formosa (Chelsoni x distillatoria).
 henryana (hookeriana x Sedeni).
 Hookerae (rafflesiana x Phyllamphora).
 intermedia (rafflesiana x unnamed sp.).
 mastersiana (sanguinea x distillatoria).
 — var. purpurea.
 mixta (Curtisii x northiana).
 Morganae (hookeriana x Phyllamphora).
 ratcliffiana (Phyllamphora x hookeriana).
 rufescens (hirsuta x Courtii).
 Stewartii (Phyllamphora x hookeriana).
 Sedeni (distillatoria x unnamed sp.).
 — var. rubra.

HYBRIDS—(continued.)

- Nepenthes superba* (hookeriana x Sedeni).
Wittei (Curtisii x unnamed sp.).
wrigleyana (Phyllamphora x hookeriana).
Williamsii (Sedeni x hookeriana).

Durian in the West Indies.—The well-known Durian tree of the Indian Archipelago (*Durio Zibethinus*, L.) has been successfully introduced to the Botanic Gardens in the West Indies, but hitherto it has not fruited anywhere except at Dominica. In 1895 and again this year fruits have been produced by a tree growing in the garden of Dr. H. A. Alford Nicholls, C.M.G., at St. Aroment. This was originally received from Kew with numerous other plants sent out to the late Dr. Imray and to Dr. Nicholls, in exchange for Dominica plants, contributed at the private expense of the two gentlemen above mentioned. Reference is made to the St. Aroment Garden in the *Kew Bulletin* for 1887, June, pp. 9-10; and a list of the economic plants already established there was given in the *Bulletin* for July of the same year, pp. 10-12. It is gratifying to find that all the seeds saved from the Durian fruits so far produced have been placed by Dr. Nicholls at the disposal of the Botanic Station at Dominica, in order that plants may be raised for distribution to other parts of the Western tropics. One fruit was lately received at Kew, but, unfortunately, it did not arrive in good condition. Those interested in the subject may see a fine plant of Durian, about 15 feet high, in the Palm House, where it has been established for about 15 years, but so far has not flowered.

Lily culture in Natal.—*Lilium longiflorum*, var. *Harrisii*, popularly known as the Bermuda Lily, has for some years been grown on a large scale in Bermuda for the supply of the United States and Europe, the annual export of bulbs being of the value of about £20,000. The bulbs arrive in England in September, when they are planted in pots and kept in frames or greenhouses till they flower in April or May. Efforts appear to have been made to cultivate this lily in Natal for the European market, as is shown by the following advertisement, which appeared in the *Gardeners' Chronicle* for April 17th, 1897:—

“Messrs. Protheroe & Morris will sell by auction at their Central Sale Rooms, on April 21st, a first experimental consignment of 4,000 *Lilium Harrisii*, grown for some years in Natal, where the habit of plant and size of flower have attained great perfection, in addition to the season of flowering being entirely changed. The sender anticipates that by being kept back, or by being potted and allowed to come slowly, flowers of this grand lily may be obtained when nothing like them is in the market.”

These bulbs were equal in size and quality to those received from Bermuda; they realised about 15/- per hundred. About 200 were purchased for Kew. These were planted in pots and placed in the open air, where they grew to about a yard in height and flowered freely in September, three months after the Bermuda bulbs.